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Geriatrics—Some Problems in Treating the Aged

• Malford W. Thewlis, M.D., Wakefield, R. I.

THE SENILITY SYNDROME

GERIATRICS is that branch of medicine which deals with the prevention and treatment of disease of advancing years. Dr. I. L. Nascher, of New York, was the first to recognize it as a special branch of medicine. We owe him much and all those among us who have the privilege of knowing him think with deep gratitude of his willingness to teach all he knew.

Just when does senility begin? There are patients in their twenties with arteriosclerosis and similar physical handicaps usually spared us until our advanced years, and some men of eighty show few symptoms of degenerative changes. A defective germ plasma may be responsible for premature old age. We have much to learn of conditions in youth which predispose to diseases of mature life; there are diseases of mature life which predispose to diseases of senility, and, as a climax, there are diseases of old age which appear at the age of ninety—to prevent them would prolong life, and patients might live five or ten years more.

When a patient consults us; when the x-rays show up diseases of the lung, stomach or other organs; when the blood tests are made, it is often too late to help. As yet, we have no means at our disposal to detect cancer before it develops (why is it that a patient may complain of vague symptoms for years and, after cancer is diagnosed, she has exactly the same symptoms?). It is unfortunate that we have no means of diagnosing gastric ulcer before it has fully developed. If syphilis can be detected in the first few days of its existence, the patient is spared much wear and tear and a great deal of expense.

There are many factors to be considered in dealing with advancing years. For instance, heredity. It is extremely interesting to study family histories. Focal infection in youth or middle age may influence senile changes. Endocrine dysfunctions, dietary deficiencies, lack of exercise, overweight—all predispose the patient for final degenerative changes.

We know that we can often prevent diabetes by keeping the patient underweight; if the patient is a diabetic, we know that we can prevent some complications by proper care of the feet. Overweight predisposes to arteriosclerosis, arterial hypertension, gallstones and arthritis, in some instances.

Vitamin deficiencies in youth may cause trouble in later years. Many of the nervous conditions that we observe in later life seem due to a deficiency of vitamin B. Even in old age, there are many conditions which are improved by the administration of vitamin B extracts, such as anorexia, constipation, and, in rare instances, certain spinal symptoms which are suggestive of cord degeneration.

Professor Hart and Drs. Kline and Elbehjen, of

the University of Wisconsin, have called vitamin B the brain vitamin. When the diet is lacking in this, deterioration of the cerebellum, especially in the motor areas, and general paralysis result. In some cases, vitamin B seems to help weakness of the spinal nerves in old age.

The use of vitamin B extract for the prevention of nervous disorders is interesting. In beriberi, we see the effect of vitamin B deficiency on the myocardium and it is a factor in the production of edema.

One of the most interesting studies, if one is interested in diseases of old age, is the syndrome of the menopause. Amongst the women we observe, we find many who first became overweight and showed arterial hypertension—then arteriosclerosis and hypertensive heart disease. We may feel reasonably sure that in a percentage of those cases such developments could have been checked.

Attention to diet, proper administration of thyroid and ovarian extracts, and elimination of foci of infection have apparently enabled these patients to do much better and go through the menopause with a minimum of discomfort. Others, without any treatment at all, may apparently do as well.

At this time of life the slightest gain in weight and the slightest elevation in blood pressure should be taken seriously. A blood pressure of 140 systolic in a woman who has never had over 120 should be considered a warning that, probably twenty years hence, she will suffer from arterial hypertension. A patient, aged 50, has had a blood pressure of 154/120 and hypercholesterolemia since the menopause. After medication with small doses of luminal, theelin and vitamin B, and a reasonable cholesterol diet over a period of three years, she is much improved and has a blood pressure of 134/90. It is interesting to note that this patient had a normal basal metabolism rate but, because of hypercholesterolemia, she was given one-half grain of thyroid extract daily. It was not until she took thyroid extract that the blood pressure fell noticeably. Of course, we must not assume too much and must check up on results. One might wonder if observations made in an office, when patients come for minor symptoms, are not different from those made in hospitals where more advanced cases are seen.

Another woman, aged 53, has been under medical supervision since an artificial menopause eleven years ago. No attention was given to her blood pressure until a few days ago. While walking on the street she felt faint and when she was examined, her blood pressure was 200. She is now under a regimen with small doses of luminal and a liberal protein diet—all the meat she desires, a reasonable amount of alcohol and tobacco, and is using Jacobson's method of relaxation. My impression is that a liberal amount of protein is required in these cases as long as the caloric intake is not excessive;

therefore, I allow my patients meat three times a day, if they desire it; alcohol, tobacco and coffee in moderation do no apparent harm, as well as a reasonable amount of salt, provided there is no cardiac or renal involvement. Some patients seem relieved of hyperpnea after the elimination of one abscessed tooth.

Besides the endocrine extracts, an eighth to a half of a grain of luminal three times a day taken over a period of months may help these patients. This seems to soothe them and enable them to sleep better; thus, we are able to prevent a great many metabolic disturbances. Many cases of arthritis, thyroid disease or hypertensive disease start with a disturbance brought about by lack of sleep. A small dose of luminal, nembutal, ipral or neonal often gives excellent results—it merely provides a peaceful sleep, but that is a great deal. Let us make sure that our patients do not lack rest. If peace of mind cannot be restored otherwise, chemical control is justifiable.

In geriatrics we are confronted with a condition which Nascher termed the norm of senility. It is conceivable that all of our organs may be diseased, yet work in perfect harmony. We remember a man of sixty who had diabetes, nephritis, arterial hypertension, arteriosclerosis and pulmonary tuberculosis. He worked as a wool-sorter for eight years and seemed comfortable. There are others, with a mild degree of arteriosclerosis and nephritis, who, at the age of forty or forty-five, are greatly handicapped. Then, of course, we have the cases of so-called malignant hypertension that nothing ever helps.

After a certain age, perhaps in the late fifties, or early sixties, arteriosclerosis begins and may be considered a normal outcome of advancing years. We should not make the mistake of calling it arterial degenerative disease.

Of course, we are often trying to prevent premature arteriosclerosis. Aschoff¹ said that if one takes in the whole picture of atheroma, one concludes that the precipitates of lipoids are a most important factor. Research work on cholesterol metabolism is to be hoped for, especially in early manifestations of disease.

Aschoff believes that doubly refractive droplets in the intima should be regarded as cholesterol esters and cholesterol oleates. Fatty degeneration of the vessels is therefore due to esters. While feeding cholesterol to rabbits, Aschoff has been able to produce atheromatous changes in the heart valves and in the intima of the great vessels. These experiments have not been duplicated in humans. Leary's investigations along this line are convincing.

According to Aschoff, the disturbances occur first of all in the media of the aorta, carotids and coronaries. In other parts, the disturbances are confined to the intima. The lipoids accumulate in the interstitial tissues and the process is really an infiltration.

Without doubt, arterial changes are often associated with an increase of cholesterol esters in the blood. The substance must be present in the blood stream in sufficient quantities to make the condition possible. In cardiac disease, arterial hypertension, diabetes and nephritis, there is an increased deposit

of lipid. The source of the lipoids is probably to be found in food. There is a tendency now to get away from the idea that the concentration of blood constituents necessarily reflects the contents of the constituents in other parts of the body. Thus, there may be a hyperlipemia in fasting and with an exclusive meat diet. There is a good deal of evidence that we can increase the cholesterol of the blood by high cholesterol feeding. But there isn't much evidence that we can reduce a high cholesterol of the blood by a low cholesterol diet. Perhaps this is because most cases, as usual, are observed after the damage is done. We believe some of those abnormalities could be corrected if discovered early enough. One disturbing factor is that the body apparently can synthesize cholesterol. However, distinguished clinicians—Joslin and others—seem to have in mind the control of blood cholesterol through diet. Aschoff found a marked decrease in the occurrence of atheromatosis during the latter part of the World War, when the food supply ran low.

Muller² believes that ingested cholesterol plays a minor part in endogenous cholesterol metabolism, and that hypercholesterolemia is a question of abnormality of regulation, observed in practically all endocrine disturbances.

Currie³ found that cholesterol values were lowest in January and highest in the summer months.

Aschoff¹ believes that calcification may be independent of the lipid process, may be perhaps a mere consequence of necrosis. Calcification of the media is not preceded by lipid changes. According to Aschoff, it does not tend to occur in the aorta or vessels of the brain or heart, but rather, in the extremities, especially in the tibial vessels. Arteriosclerosis of tibial vessels is common in middle age. The most damaging arterial changes, of course, occur in the coronary arteries.

Bruger and Poindexter⁴ point out that a high cholesterol diet, rich in carbohydrates and fats, results in obesity but is not necessarily accompanied by a rise in blood cholesterol. Development of degenerative disease in the obese as a rule is followed and not preceded by hypercholesterolemia. Cell degeneration, therefore, is accompanied by cholesterol changes while cellular disintegration in inflammatory disease and malnutrition is associated with marked diminution of cholesterol.

Calvin and Goldberg⁵ believe that diet has no influence on hypercholesterolemia. Peterselie⁶ states that the normal cholesterol ranges from 150 to 200 milligrams per 100 cc. In health, the cholesterol esters are from 46 to 70 per cent of the total. The cholesterol-ester ratio is abnormal in diabetes and parenchymatous nephritis and only under certain conditions of diet and therapy. We might say that the average cholesterol ranges about 190 milligrams. The free cholesterol ranges from 20 to 50 per cent. It is estimated by subtracting the cholesterol esters from the total cholesterol.

Black⁷ states that cholesterol enters into the structural make-up of cells and is found in nerve tissue, liver, bile, red blood cells and plasma. It is a constituent of normal skin secretions. The chief source is food and the presence of fatty acids, bile and pancreatic juice in the intestines. Black believes

that a blood cholesterol below 130 is subnormal. 130-180 is the normal range and 180-200 is suggestive of hypercholesterolemia, but still normal, and about 200 is definitely elevated. We may get a normal blood cholesterol with increased esters. The association of myxedema and hypercholesterolemia is interesting. Hurxthal⁸ believes that the cholesterol content is of distinct importance in the diagnosis of hypothyroidism but not of much help in borderline cases. He believes that if hypercholesterolemia is found without nephrosis, diabetes, common bile obstruction and xanthomatosis, we are justified in giving a therapeutic trial of desiccated thyroid. Hurxthal found that hypometabolism with known suprarenal or pituitary insufficiency was not accompanied by hypercholesterolemia. He further states that the relationship between the blood cholesterol and the basal metabolism is usually reciprocal when they undergo change as the result of variations in the activity of the thyroid gland.

A low cholesterol diet predisposes to infections. Many of these patients suffer from a succession of head colds and infected throats are not uncommon. In some instances a small amount of cream cheese daily seems to offer adequate protection. In schools and in those patients who are subject to infections, it may be well to consider a basic cholesterol diet of one egg and three pieces of butter daily. Moreover, postoperative infection is not uncommon and it might be well to have the patient take an excess of cholesterol for a few days before operation. Eggs should be added to the postoperative diet at the first possible moment.

Reducing diets often cause a succession of head colds and this may be because butter, cream and eggs are eliminated in these diets. It would seem, therefore, that reducing diets should contain a reasonable amount of cholesterol or one of the vitamin A concentrates.

Bloor, Okey and Corner,⁹ in studying the lipid content of the corpus luteum of the sow, observed that cholesterol esters were found to vary inversely with the activity of the gland, a high content being characteristic of the degenerated gland, and concluded that cholesterol esters seem to be related to inactivity or retrogression.

Our own observations on cholesterol metabolism are not sufficiently large to enable us to form any conclusions. We may soon hear more about cholesterol as a cause of arteriosclerosis, and be told that while in the advanced cases not much can be done for the patient, in its incipient state it may be possible to reduce the cholesterol esters and total cholesterol by a proper diet or by administration of thyroid and ovarian extracts when indicated. That is, if we begin early enough, we may or may not prevent arterial degenerative disease. In dealing with a patient who has a high blood cholesterol or increased cholesterol esters, we can suggest a diet without an excess of cholesterol, which means that the following foods should be not taken too freely: brain, liver, eggs, butter, goose, duck, sweetbread, cream, fat meats and sausage. If this diet is to be continued, vitamin A deficiency must be corrected. Joslin¹⁰ points out that the association of diseases of the gallbladder and the coronary arteries is striking. The excess of fat in the diet in the diabetic

may lead to the formation of gallstones. Joslin¹⁰ has done some thorough work in the study of cholesterol and its relation to diabetes. He does not favor complete exclusion of foods rich in cholesterol but limits eggs in patients over fifty years of age. He believes that cholesterol appears to protect against infections.

If the basal metabolism is low, thyroid extract is given. If the basal metabolism rate is normal and the blood cholesterol high, we may give small doses of thyroid, as a routine. It may or may not be possible that some of these early cases of hypercholesterolemia with normal basal metabolism could be helped with very small doses of thyroid, such as one-fourth of a grain, three times a day. If we hope to prevent degenerative diseases in old age we must begin treatment in middle age or in youth and it would seem that the approach through blood cholesterol study is the most helpful at the moment, but we have very much to learn. Thus far we know very little about the causes of degenerative vascular disease. Theory after theory has been discarded.

PREVENTION OF FRACTURES IN OLD AGE

Fractures of the spine or hip are the old person's nightmare. Can anything be done to prevent these? Joslin¹⁰ has well pointed out that the adult requires .7 gram of calcium a day and this is quite essential to aged persons. Many of these patients have been on a low calcium diet to prevent arteriosclerosis, but this is not necessary since the important arteries—aorta, carotids and coronaries—are apparently affected by cholesterol esters more than by calcium. To be sure, cholesterol foods contain calcium, but if the aged person takes a reasonable amount of green vegetables each day, plus one egg, three pieces of butter and a pint of milk, the basic needs of cholesterol will be furnished and the .7 gram of calcium, as Joslin suggests, will be supplied.

In frequent fractures in old age, hyperparathyroidism¹⁴ should be suspected and proper x-ray therapy instituted. We have seen one case where this has been the solution—the woman had a fracture of each hip on different occasions but since x-ray therapy she has improved in health and had no more fractures.

We must not take too much for granted in treating the aged. They will tell you that they eat everything they should, that they bathe regularly, that they have a daily bowel movement. I believe that old patients are quite as expert at lying as syphilitics. Their minds are quite apt to think along lines of things that they want to believe.

CORONARY DISEASE

Aschoff¹ believes that the arterial changes occurring at the decline of life are due to an overstrain of vessels; associated changes in the intima favor swelling of fibrous tissues and the proliferation of fibrous cells. The problem of preventing coronary thrombosis is most interesting and in some cases it is apparently possible to carry patients through the danger period without any accidents. The work of George Levene¹¹ and his co-workers on the early diagnosis of coronary disease by fluoroscopic and radiographic methods is a step forward. Levene has

pointed out that in coronary disease there is diminished amplitude of cardiac contractions and the left border of the heart is straight or concave instead of convex. This condition can be quickly detected under the fluoroscope and the diagnosis checks very well with the electrocardiogram.

Therefore, in routine examination, if there is diminished amplitude and a flattening of the left border of the heart, we are justified in advising a reasonable cholesterol diet and in advising a modified rest over a period of a few months until the danger has passed. It is likely that this method has saved several of our patients from coronary thrombosis. We must not jump at conclusions. It is interesting to study such cases in an effort to ascertain whether we are right or wrong.

THE SENILE PROSTATE

Focal infection in the teeth or tonsils seems to be one of the capital factors in the cause of senile prostatic hypertrophy. Hirsch,¹² in his excellent monograph, points out that infection is the underlying cause of most prostatic disorders and that no other gland in the male is as subject to infection as the prostate. He recommends prostatic massage for the relief of inflammation within the prostate. But it must be carefully given.

For years before the prostate reaches the operative stage, we have an enlargement of varying degrees; it is early in the course of the disease that we must act, thus preventing much suffering in later years.

FOCAL INFECTION

In old age, we must not neglect the tonsils. Recently we have seen several patients who presented symptoms commonly attributed to senility, and these patients showed abscessed tonsils—a puncture into the area produced from a few drops to a dram of pus. Most of these patients had no throat symptoms. Usually draining the abscess is sufficient; in some instances, the abscess area can be fulgurated with ease. There are aged people able to stand a tonsillectomy.

One man of 70 had mental symptoms of long standing. Removal of several abscessed teeth apparently restored balance.

A woman, aged 60, was quite toxic—deep breathing, drowsiness, albuminuria and casts in the urine. She had a severe cough. When relieved of pus in the maxillary antrum, she quickly improved. Many old patients have anorexia as a result of sinusitis, causing loss of weight and lowered resistance. Many facial neuralgias are relieved by proper attention to the nasal accessory sinuses. It is possible to have an antrum filled with foul pus without any subjective symptoms. The aged are often hyposensitive. This accounts for appendicitis in old age without pain.

One woman, aged 65, had severe sciatica. Routine examination showed a large abscess in one tonsil. She had no throat symptoms. A puncture revealed over a dram of thick yellow pus. As in many other cases, it took months to rid her of the effects of absorption. The damage done by one tooth may be felt a year after its extraction.

A man, aged 60, had a severe backache. He had been unable to bend forward for months and was quite crippled. All diseased teeth had been removed. X-rays of all empty spaces showed an old infected, fractured root and, when this was removed, the patient rapidly improved. Even a devitalized tooth, negative in the x-ray examination, may prove detrimental. My own belief is that all devitalized teeth should be removed at the age of 40 as a

preventive measure; it would be even better not to allow them in youth.

There is no reason why abscessed teeth should not be removed from the mouth of a man of 80 if there is evidence of absorption. Perhaps it is better to extract two teeth a week, for instance, than to attempt removal of all teeth in one day. To be sure, some of these patients develop coronary symptoms after the extraction, but it may be a coincidence. The elimination of gingival pus pockets is fully as important as the extraction of diseased teeth. A vaccine made from the pus of an abscessed tooth or diseased tonsil is often beneficial, especially since it requires from one month to a year to repair the damage.

THYROID DEFICIENCY IN OLD AGE

It is surprising how many cases of hypothyroidism will be found in old age. A high blood cholesterol and sensitiveness to cold suggest a thyroid deficiency. A low metabolism rate clinches the diagnosis.

Hurxthal⁸ shows that mental symptoms associated with hypercholesterolemia should demand thyroid treatment even with a normal basal metabolism rate. Thus blood cholesterol estimation should be done at the same time the basal metabolism test is made.

A man of 70 was typically senile. Cried easily, was a problem. A slow pulse and fainting attacks suggested Stokes-Adams disease. Cholesterol was 256 mg. and the basal metabolism rate was -40. Large doses of belladonna before meals and thyroid extract have completely changed him and he is at work each day.

A man, aged 47, had a corneal ulcer. After several negative x-rays at different angles, a small abscess was found on a root of one molar, the removal of which was followed by a complete cure of the ulcer in two weeks. He weighed 220; his basal metabolism rate was -45, blood pressure 170/110, cholesterol 320 mg. On thyroid medication and a properly balanced diet he lost two pounds a week until he reached 190. The blood cholesterol dropped to 185 mg. and the blood pressure to 130/90. In the course of four months, this man had rid himself of some danger signs. During the course of the treatment, he was working under high pressure as a corporation lawyer.

A woman, aged 65, had joint symptoms. She showed evidence of senile mental changes. Basal metabolism was -45. Thyroid extract has completely cured her.

A woman of 50 came to my office. Her mind was not clear. She had been in a hospital for mental diseases on two occasions and failed to improve. The basal metabolism rate was -26. On thyroid medication she completely recovered.

A woman, aged 65, has had myxedema for twenty-five years, well controlled by thyroid extract. About five years ago this medication ceased to benefit her. Her blood smear did not show macrocytosis. However, adding liver extract to the treatment immediately improved her and she now takes thyroid daily and occasionally returns to liver therapy. It is well to bear this in mind in treating myxedema. For all we know, the patient may be conditioning herself for pernicious anemia and this addition of liver to the diet is a protective measure.

In administering thyroid extract in old age, we may precipitate coronary thrombosis. If there is the slightest oppression in the chest, the dose should be diminished immediately.

It is not uncommon to see the blood pressure reduced under thyroid administration. On the other hand, we should not forget that some time in the late sixties the blood pressure is apt to drop and remain normal without any apparent cause. Blood pressure in old age should be as near 140 as possible, no matter what the age of the patient. Adding 100 to

the age to determine normal blood pressure is most inaccurate.

GERIATRICS AND SURGERY

How many aged people are allowed to die when a surgical operation, performed by skilled hands, might prolong life and make them comfortable enough to enjoy it?

There are many women past 80 years of age who could and would undergo a gallbladder operation if the physician were optimistic. We are often inclined to be unduly pessimistic in dealing with patients of advanced years. The problems of senility are interesting.

Aged diabetics may successfully undergo operation in skilful hands and under ethylene anesthesia. There are many old women to whom life has become a nightmare because of cholecystitis, prolapsus uteri or cystocele. Of course, it would be better to correct those abnormalities at the age of 50 or 60, but there is no reason why persons past 70 or 80 should not be given a chance to live a little longer and comfortably.

Take, for instance, the old man who suffers from cholelithiasis; the question of cancer or cirrhosis of the liver enters into the picture. The Takata-Ara reaction may rule out advanced cirrhosis, but only exploration will elicit the presence of carcinoma. It is advisable to give old people a chance and operate; to consider them doomed is a mistake unless they happen to be abnormally weak.

Advanced years are not always a handicap on the operating table. They often stand operative shock far better than younger patients. It is amazing to see a man of 85 undergo an operation for peptic ulcer and rally. A most able surgeon and an equally able anesthetist are necessities in such cases—a surgeon who is not only deft but quick and who will work with a minimum of injury and manipulation of the tissues. Several years ago that famous surgeon, Robert T. Morris, advocated that in the fourth era of surgery we would operate with a minimum of manipulation of the tissues and with a very small incision. He was a good prophet.

Preparing the senile patient for operation is essential: intravenous saline the night before is often satisfactory, intravenous glucose on the morning after operation, and subcutaneous glucose and saline at night, this repeated every day until the intake and retention of fluids are satisfactory. The aged patient should be out of bed soon after operation, if his condition warrants it. Some surgeons get their old patients out of bed on the second or third day and home on the seventh day following appendectomy. There is a tendency to keep old people in bed too long. This is a misconception of factors involved: there is obviously less danger of embolism or pneumonia if the patient gets up soon after operation.

Give your oldest patients the chance to rally and enjoy life as long as possible. The results of our efforts will often surprise us.

CONDITIONING THE PATIENT

We have noticed that a defective germ plasm, overweight, focal infection, endocrine disorders, lack of sleep, anemia, hypercholesterolemia, hyper-

glycemia and infections are factors in degenerative changes and condition the patient for the diseases of old age. The time to think of disease is before it develops. Some day we may know more about the conditions which invite disease. We may learn to detect minute symptoms still overlooked.

CANCER IN OLD AGE

A man of 79 has had repeated cancers in the buccal cavity and on the skin of the face. Surgery, radium and x-ray therapy have succeeded in keeping him fairly free from disease for fourteen years. He has had four or five recurrences but each time he was relieved. Now he has an extensive involvement of the antrum of Highmore but he still fights. A few days ago he completed another course of deep x-ray therapy. He was so exhausted that it seemed unsafe for him to go to Boston. But after his treatments, he is quite fit again. Many so-called hopeless cases are greatly improved by radium and deep x-ray therapy. Cancer in old age often yields to these agents in selected cases. Sometimes the apparently hopeless, cachectic patient rallies remarkably well.

Cook, in England, has been working on the theory that there might exist, in the human body, harmless substances necessary to life, but which become perverted and changed into cancer-producing agents. Such a substance is deoxycholic acid, which, when subjected to processes similar to those which occur in the body and injected into laboratory mice, has produced cancer in these animals.

KEEP SENILE CASES OUT OF BED

Two of the most important considerations in the treatment of the aged are to keep the intestines active and to keep patients out of bed when ill. A few days ago, we saw a woman, age 74, who had a head injury (for she had fallen out of an automobile). She was most uncomfortable; nausea, vomiting, restlessness—many indefinite symptoms. After three days in bed she was advised to sit up in a chair. The nausea and vomiting immediately disappeared. She left the hospital the next day much improved. No matter how seriously ill the senile patient may be, it is advisable to get him out of bed. Sometimes it seems rather cruel to insist on this, but it must be done (this, of course, does not apply to coronary thrombosis).

It is not uncommon to see an aged patient apparently seriously ill without definite evidence of disease. A colonic irrigation or two compound rhubarb pills may be the answer.

Allowing a senile patient to get out of bed is a clever move. The order is a psychic stimulant. Indirect suggestion is always more effective than attempts at direct control and if you allow him to get out of bed he immediately believes that you really think he has a chance. It also improves circulatory stagnation, so to speak, and we should insist on old people remaining as active as possible. When a man is ready to retire, he often disintegrates. Dr. Abraham Jacobi, "The Father of Pediatrics," at 80, saw several patients a day and he was as up-to-date as any other good man twenty years younger. Look over the list of men past 80, and you will find some of the great minds of the world still at work, giving us the benefit of their rich experiences.

CONCLUSIONS

1. Diseases of old age require special attention.
(Concluded on page 74)

The Element of Neurosis in Chronic Peptic Ulcer

• James J. Stefano, M.D., Brooklyn, N. Y.

THE muddle in which the status of chronic peptic ulcer finds itself today is because it is a human disease resulting from our form of culture. It, therefore, requires a different approach from that used by workers in the past interested in this disease, in order to comprehend the changes in physiology that take place when disturbances of the human element occur. Therefore, all the experimentation performed on animals was not quite successful in finding the cause and treatment, because there was the human element that man and only man can have. This factor, which the laboratory workers never considered, was the cause of their failure in the search for knowledge wherewith to relieve sufferers with this syndrome. It, therefore, explains why a chronic peptic ulcer has never been produced in man experimentally. It comes in the same category of diseases as exophthalmic goiter, essential hypertension, cardiospasm, and the colitis group of complaints. The reason why these human diseases are not as well known today as they should be, and their treatment haphazard, is due to the present-day teaching in our medical schools, where the etiology of diseases caused by bacterial invasion is emphasized, with its resulting organic manifestations.

All these teachings have occurred as the result of the concrete knowledge contributed to medicine by physiology, chemistry, and biology, so that all factors and symptoms were interpreted on a physical basis. Conventional medicine has been so emphasized that all the clinical knowledge learned by physicians prior to the laboratory period of medicine, covering many hundreds of years, became useless and worthless. However, in spite of the tremendous aid the laboratory has given toward the progress of medicine, many diseases have become, as a result of such dogmatic teachings, actually impregnable while the search for knowledge aiming at their conquest goes on, because of the prejudice towards thinking in terms of the older physicians. They readily admitted that the mind controlled bodily functions and that exaggerated physiological processes of the viscera could be caused by interaction between individuals and the environment, and that, if continued long enough, organic processes could result.

This relationship was largely neglected by modern doctors until the pioneer work of W. B. Cannon, who did extensive experimental work on the effect of emotion on the body. He demonstrated that cats enraged by dogs respond with an increase in epinephrine, a rise in blood sugar, an elevation in blood pressure, and a hyperactivity of the viscera. This neuro-endocrine reaction occurs in human beings when aroused by fear. He also demonstrated that the degree of the increased function of the viscera was proportionate to the intensity of the emotional reaction. These functional disturbances become the voice and vocabulary of the mind.

Pavlov's work on conditioned reflexes also helped a great deal to enlighten us on the different possibilities that could affect the various visceral activities, and especially digestion. He called them investigations of the physiological activity of the cerebral cortex. The results of his work need no further comment from me at this time, except to state that conditioning takes place through life and, when it affects the digestive systems in an adverse manner, then we are likely to have interference with the digestibility of foodstuffs. We are apt to consider first an organic involvement of the location where the distress appears to come from, and to attempt to find the cause for such a complaint in some organic pathology, usually the result of an infection, and to think of the foods that cause distress as secondary to the local disturbances, whereas in reality the distress is due to the exaggerated physiological functions of the organ affected, which prevent it from doing its proper work of digestion. The natural human tendency would be to blame the cause of the indigestion on the food eaten, whereas it is not the food but the abnormal condition of the stomach caused by conditioning from emotional disturbances due to factors outside of the body which cause the abnormal response. Therefore, it is not due to any local condition in the stomach. However, the fact remains that some of these patients are found to have an ulcer after a thorough gastro-intestinal survey. What about the finding of ulcer? Should we become alarmed and then realarm our patients? No, by all means no, is my answer. Such faulty tactics is part of our present form of treatment.

As a result of such measures now instituted by the medical profession, the present opinion of ulcer, in all fairness to the physicians who hold views opposed to mine, is best expressed by an eminent surgeon of national repute who said the following at a meeting of the American Gastro-Intestinal Society last June: "I appreciate the fact that this subject is a trite one. At any meeting it occasions a great deal of discussion. I appreciate the muddle in which the entire ulcer situation is. I do not believe that the poor patient really gets a fair deal when you help him make a decision about what he will do with his ulcer, unless you frankly tell him that medical treatment and surgical treatment are far from what we should like to have them be; I mean in terms of high percentage of cures and non-recurrences. Medical treatment as well as surgical is far from satisfactory as to how he can approach operative treatment seriously. Certainly the patients approach the subject from the point of view that it is not serious. The man with the duodenal ulcer takes it too lightly. He even takes his hemorrhages lightly, and that is wrong. If he is going to die from these lesions as a result of perforation or hemorrhage, as he is, or as the result of jejunal ulcer or subtotal gastrectomy, and he is, then the

just thing to do is to impress upon him the seriousness of peptic ulcer and the need for accurate management of his ulcer. If he does not adhere to his regimen, the responsibility for a recurrence is his."

The above statement needs no comment as to the actual facts in the hands of such a capable surgeon, but throughout his remarks he instills a fear of something he does not know much about. He has attempted in this manner to build up this ulceration in the stomach or duodenum into a mountain with all the bugaboo one hears in some sales talks by men whose statements are built on a wrong premise. I believe that if all the complications of ulcer are left alone and probably nothing more than morphine given, the ultimate danger to life would never equal the damage done by our present form of treatment, regardless of type. No one has ever produced evidence that an ulcer ever caused any symptoms when in the simple state. Everyone agrees that the stomach and intestines can be torn and otherwise handled pretty roughly during an operation without necessarily ill effects, and still the surgeon, seeing this every day, does not stop long enough to correlate all the facts at his disposal. It is my belief that, as a result of our conventional methods, the pitfalls of the last thirty years in the treatment of this malady have resulted. Therefore, if we are actually to make progress in mastering peptic ulcer, a reorientation should take place. It would be relegated to the status of a symptom in this symptom complex of peptic ulcer which is part of the structural make-up of the neurosis in this type of patient. It is the pathway in which the emotional reaction is expended. It has been found present only occasionally in patients with this multiple complaint. Further observation has disclosed that this syndrome occurs only in certain individuals who have disturbances of personality. I am convinced that it plays but little part in the symptomatology by which we have been able to recognize it in the past.

This same surgeon, a short time ago, condemned the more radical surgeons for their extensive surgery for such a simple thing as an ulcer, and now has changed his previous opinion and states that doing the more simple operation of gastro-enterostomy is wrong, and that the surgeon who is still doing such an operation should be taken to task for lack of judgment or ability to do what he considers the right thing to do. I suppose as a result there will be a race amongst surgeons to outdo each other to see how much of the stomach can be removed. It is probably that instinct occasionally noted in the surgeon calling for more cutting as a short cut to a cure.

The medical treatment as practiced today is in the same category, except that the patients are made to live a life which is not justifiable only because someone in the past decided on a certain form of treatment and we have blindly followed. Many of the sufferers are half starved all the time, and the sad part of it all is that we justify it. The real purpose of a diet in this type of case is to give the patient as much to eat as he requires to satisfy his caloric needs, and at the same time give the overworked stomach muscles less work to do. Naturally, heavier foods, eaten when the stomach is in

a state of intense activity as a result of an emotional reaction, will cause a rebellion with resulting discomfort and possible pain. Therefore, if a diet is given at all, these patients should be told the purpose of the diet and advised as to the various disturbances that can occur as a result of the vitamin deficiencies in all ulcer diets if continued over a long period of time. The majority of these patients know by experience the help a restricted diet gives them, and also the various deficiency states that can occur, but the fear of the return of discomfort following the ingestion of the heavier foods, to which response they have become conditioned, leads them to select the latter of the two evils and subject themselves to partial starvation and its consequent deficiency states. The unpleasant necessity of diet restrictions is a constant reminder of the presence of their malady, which helps to intensify the activity of the stomach musculature.

Drug therapy as practiced today is in the same uncertain status as the rest of the picture. The alkali powders which are usually given in order to neutralize the excess hydrochloric acid accomplish their purpose temporarily if at all. The same result can be had by the intravenous injection of bicarbonate of soda; so that the question arises whether alkalization takes place by neutralization of the hydrochloric acid in the stomach or by producing a change in the blood pH. As a result of this observation, there is a definite doubt created as to whether the increased acid secretion has anything to do with the picture that the ulcer syndrome presents; possibly it is a concomitant factor but not a causative one as many would have us believe. The secretion is regulated by stimuli through the vagus nerve, and that stimulation is usually influenced by emotions.

All the new injection treatments that are in vogue today are temporarily successful because of the psychological effect and not because they have anything to do with the cure of the ulcer. The real reason why they do work may be explained through the citation of a case that a colleague of mine had:

The patient had a duodenal ulcer and the doctor informed this man that he was going to give him the new injection treatment for ulcer, but that he would have to wait until the next day until he could buy the ampules of medicine. That afternoon the patient requested the advice of the medical department of the transit company for which he worked as to the merits of this injection treatment. The doctor for the transit company advised him that it was the latest treatment and that the doctor he had was a very modern and up-to-date physician. He returned to his doctor for the injection treatment. The doctor had not bought the medicine when the patient called the next day. Not wishing the patient to lose faith in him, he gave him an injection of iron and arsenic, which was handy. At the same time he reassured the patient as to the excellent results he could expect. The following day the patient returned to his office and was given another injection, the contents of which I was unable to find out. The same procedure was continued for some twenty-one consecutive days. This patient actually became symptom-free after his second in-

jection, and has continued to be so from reports. So drugs advertised as specific for this condition should be regarded cautiously by the profession.

During the past year about thirty patients were studied by me from a psychological point of view, and it was interesting to note that they all demonstrated similar behavior traits as a result of their emotional conflicts. I am fully convinced that further investigations along these lines will go a long way in clearing up this troublesome affliction by preventing it with appropriate measures in susceptible individuals during the first and second decades of life. It is possible that the work of Dr. George Draper, who has contributed much to medicine with his studies and observations of the human constitution, may help to unravel the predisposing factors that precede the onset of the neurosis of complex structure which I believe is the cause of the entire picture of the ulcer syndrome.

Therefore, if one is to comprehend the total picture of the ulcer syndrome, a knowledge of the structure of the neurosis is necessary. A neurosis is a functional nervous disease which results from a clash between the unconscious longings (pleasure principle) and conscious strivings, ideals, and cultural demands (reality principle), with a resulting compromise which, at best, is an unstable solution of the conflict with poor adjustment and consequent exaggerated functions of the viscera. In this case, it is hyperactivity of the gastro-intestinal functions. These symptoms are expressions of infantile behavior. All of these patients revert back to introversion. They become dependent and seek sympathy and love. Their behavior structure is almost archaic in character. Standing boldly in the structure of neurosis is a guilt reaction, so that the physical complaints actually are self-punishment for a supposed offense committed, and this method of hoping to expiate for the crime is out of proportion to the guilt which they attach to it. These neurotics also have disturbances in their sexuality as a result of an interaction between their constitution and their infantile sexual experiences and phantasies up to puberty. All of them have encountered instances of seduction, either active or passive, which include childhood phantasies, and they have only awaited some trauma to precipitate the neurosis.

To sum up, a neurotic is one who is dissatisfied with his station in life and tries to better himself. He is unable to gratify his instincts according to the demands of society and himself, and, because of his neurotic conscience, is unable to make a satisfactory adjustment. The symptoms he complains of represent a compromise, that being a concession insuring his continued respect of society (the alternative outcome would spell psychosis). The assumption is that the stomach symptoms are conditioned by the repressed, pent up and warring tendencies which serve as chronic psychic stimuli of the stomach functions.

197 Washington Park.

There are thousands of small towns anxious to give physicians a living if they would only leave the crowded metropolitan areas.

Geriatrics—Some Problems in Treating the Aged

(Concluded from page 71)

2. Many factors are at play in the causation of senile changes.
3. Much time and study should be given to the things which condition the patient for degenerative disease.
4. Many senile changes begin at the menopause.
5. Arteriosclerosis is a normal senile change.
6. Cholesterol metabolism study offers hope for the prevention of degenerative changes.
7. Loss of sleep is the cause of many metabolic changes.
8. An increase of cholesterol esters in the blood is an important diagnostic criterion.
9. There is a possibility that coronary occlusion may be prevented in some cases.
10. Focal infection plays an important part in the cause of senile prostatic hypertrophy. Massage is a valuable therapeutic measure.
11. Focal infection in the tonsils is a common finding in senile patients.
12. Hypometabolism is frequently found in old age. Thyroid medication often produces excellent results.
13. We might have a more hopeful attitude toward cancer in aged patients, especially with deep x-ray therapy.
14. Perhaps we are too pessimistic when considering surgery in old age.
15. "Keep Senile Cases Out of Bed" is a good geriatric slogan.

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Certified Milk Pasteurization Reduces Bacteria Virtually To Irreducible Minimum.—Dr. Rosenau

Pasteurization of certified milk results in a product that averages less than 100 bacteria per cubic centimeter, according to Dr. M. J. Rosenau, president of the American Association of Medical Milk Commissions. Pasteurization of certified milk reduces bacteria virtually to the irreducible minimum and, furthermore, has no appreciable effect upon the unique nutritional values of this exceptional milk supply.

For more than 41 years certified milk has been produced under the direct supervision of committees of the medical profession, and in accordance with uniform, national standards, revised annually by medical experts. Certified milk has always been the leader among clean and safe milks, and now with the added advantage of pasteurization, it represents the last word in quality milk.

Present Status of Ulcerative Colitis

• Benjamin M. Bernstein, M.D., Brooklyn, N. Y.

ULCERATIVE COLITIS is a "dread" disease, usually acute, and a frequently recurrent, chronic and badly disabling condition which has as yet defied the best efforts of medical men for solution. However, progress has been made and is being made in the study of the etiology and relief of this disease within recent years.

We shall attack the problem of so-called non-specific ulcerative colitis, which is the type most frequently met with by the general practicing physician. It has been called colitis gravis by older clinicians. One of the earliest reports is that of Wilks in 1875, later one by Gemmel in 1898 and in the beginning of the 20th century by Martin in 1904 and by numerous others since that time. Hare, in an article in the *British Medical Journal* of July, 1934, says: "The cause of the disease is undetermined, though its relationship to the dysentery group is a possible one." He compares it in some respects to a deficiency disorder, noting that vitamins A and B are necessary for the development of normal mucous membrane and for maintaining its resistance to infection. Vitamin deficiency has produced, in monkeys, colitis of a type similar to that seen in human beings. Some workers have maintained that good nutrition prevents colitis even when pathogenic organisms are present in the gut. The association of iron deficiency with colitis is an interesting one—as in simple hypochromic anemia. Colitis in uremia is due to excretion of toxic substances into the intestinal wall and it is therefore surmised that ulcerative colitis may, likewise, represent a toxic attack of indeterminate origin on the colon.

Before one can discuss the treatment of any condition, the etiological factor must be determined, because then the question of treatment resolves itself into whether it be specific, non-specific, symptomatic or eradicated. There are a number of factors which must first be set down in the study of the fundamental questions underlying a discussion of ulcerative colitis.

It is known that pathogenic bacteria can pass through uninjured healthy mucosa. Even typhoid fever has been known to have been present without the existence of intestinal lesions. Tubercle bacilli also may pass through the normal intestinal wall. Flexner believes that the lesion of dysentery is due to excretion of toxins through the bowel wall. There are other considerations which may also play a part. Lloyd Arnold, in the *American Journal of Digestive Diseases and Nutrition* of August, 1934, indicates that the bacterial flora and the acid base equilibrium of the contents of the upper half of the gastrointestinal tract seem to be as good an indication of the normal as either the basal metabolism or the blood chemistry. As one grows older and the physiological processes slow up, the lower intestinal type

of flora moves upward. As the pH of the alimentary tract rises from 2 or 3 in the stomach to 7-8 in the lower colon, the bacterial flora increases.

The next question is that of the various organisms supposedly producing colitis. *Bacillus coli* itself was first believed to be the causative agent; then various streptococci, particularly the diplostreptococcus of Bagen, which incidentally, like many other organisms, may be found in the stools of normal persons. Felsen holds the belief that most cases of non-specific ulcerative colitis are really old or recent cases of bacillary dysentery. Both Young and Dudgeon have recovered the Flexner bacillus; Winkelstein both the Flexner and the Shiga type; Mackie the Flexner; and Hurst the Flexner and Strong type occasionally by culture methods. Hurst has been one of the strongest exponents of this "bacillary dysentery" theory. Tomey and Bagen have failed to isolate such organisms. In 1904, Flexner isolated *Bacillus dysenteriae* in 63 out of 412 unselected cases of summer diarrhea.

The complexity of this problem of *Bacillus dysenteriae* as the cause of this disease grows as one follows the literature. Fildes believes that 40% of the patients excreting the Shiga organism did not have a positive agglutination. In infections, with the Flexner organism, 80% may show no agglutination reaction. Mackie, in a study of 83 cases, showed the Flexner organism by culture occasionally. A small percentage showed positive agglutination reaction with negative stools. It is worth noting at this point that normal serum has been found to agglutinate the Shiga type in a dilution of 1 to 32 in about 30% of the cases; the Flexner type (1 to 128) in another 30% and about 41% of the Flexner in dilution of 1 to 64.

The discovery of bacteriophage by D'Herelle created added interest, study and research in colitis. It has been found that bacteriophage may be obtained in about 10 per cent of normal individuals who have never had diarrhea or dysentery; also that a positive phage reaction is obtained in only about one-third of selected cases of colitis. The finding of bacteriophage in diarrheal stools should be looked upon with a suspicion which should be more than strengthened if a positive agglutination reaction is obtained at the same time.

Certain workers have recently reported that dysentery bacteriophage is present in about one-third of the cases of so called non-specific ulcerative colitis. They found no such phage in about 45 normal controls. They found positive agglutination reactions to various strains of the dysentery group in about one-fifth of 120 cases.

At the Jewish Hospital in Brooklyn, Dr. Fradkin, working in our department, is doing most important work along this line, the results of which are not yet ready for publication.

There are objections to the bacillary dysentery organism as a cause for ulcerative colitis: for

From the Division of Gastro-enterology, Brooklyn Jewish Hospital. Read at Friday afternoon Lecture, Queens County Medical Society, October 18, 1935.

example, no transmission of the disease to other members of a family is known, except that it may occur in several members when present in epidemic form. The fact that positive stool cultures are uncommon is another objection, though this may be explained by overgrowth of the colon group. If the *Bacillus dysenteriae* is the cause of the colitis, why is not the agglutination reaction a more frequent finding? Hern says that even anti-dysenteric serum is not specific because, if it were, it would be the only instance where specific passive immunization would be of any value in chronic disease.

The *Endamoeba histolytica*, likewise, has a place in our discussion of ulcerative colitis—it, too, may pass through intact mucosa. Many writers such as James, Kessel, Burg and Snijden believe that amoebae are found normally in the upper part of the colon and only become pathogenic when there is a change in the mucosa producing a state of local lowered resistance. This change may be caused by infection, fever reaction, alteration in the pH of the intestinal contents or other conditions about which we know little. Faust estimates that 5 per cent of the population of this country, under good sanitary conditions, and as high as 40 per cent of those living under poor sanitation, are carriers of amoebae. Simic says that 17 per cent of the Slav population in Macedonia are carriers of amoebae, although actual cases of true amoebiasis occur there but sporadically. Meleney *et al.* found amoebae present in the stools of about 11 per cent of over 20,000 persons in the state of Tennessee, although amoebiasis is not a common disease in that region.

The finding of amoebae in the intestinal tract does not, as already intimated, necessarily denote the present or past existence of amoebic disease in that individual, except in the presence of active colitis. The non-diagnosis and the missing of carriers is explained by the difficulty in isolating the parasite from the infected stool. The transmission of amoebiasis is not from acute cases because these do not pass cysts. The latter are excreted by chronic cases and carriers. It is only when cysts are passed in large numbers that an overwhelming pollution is produced and epidemic amoebiasis occurs. The motile forms are generally destroyed by the gastric juice, which, however, permits passage of the cyst uninjured.

PATHOLOGY

Let us now concern ourselves with the pathology of ulcerative colitis. The different types, idiopathic, bacillary and amoebic, have many features in common, though they differ in certain respects. The changes in the mucosa are produced, in great part, by a toxic attack on the intestinal wall, rather than by the growth of the organism itself. The amoeba causes a cytolysis and a consequent penetration of the cytolized tissues by the organism with secondary infection. Where the secondary infection does not occur, there is no inflammatory reaction. The extent of the pathology found differs in the various types of colitis, the idiopathic form frequently being segmental in distribution, although it may be found diffusely scattered over the entire colonic tract, even extending into the terminal ileum. The lesions of amoebiasis are usually found in the rectosigmoid area or in the proximal portion of the colon.

Bacillary dysentery is more universal, also frequently being an ileocolitis. Idiopathic ulcerative colitis begins with a granular mucosa which goes on to the stage of inflammation. Then with a breaking down of tissue, multiple ulcers form, and, as scattered ulcerative areas coalesce, the entire bowel wall may be involved. In acute cases, the mucosa becomes swollen and edematous, shiny in appearance and small abscesses may form. The ulcers may be confluent or more discrete with grayish bases which are covered with thick mucus. The mucosa between the ulcerated areas is usually paler than normal. The lesions do not as a rule involve the rectal sphincter. It is not always possible to differentiate idiopathic colitis from true amoebic and bacillary dysentery from the proctoscopic picture alone. Healing is a slow process with gradual disappearance of the ulcers and replacement by normal tissue in some cases and thickened fibrotic mucosal strands in others, occasionally even resulting in diffuse chronic thickening of the entire bowel with a stiffening of its wall and occasional cicatrices. Perforation in ulcerative colitis is rare though it must be kept in mind as a possible complication.

SYMPTOMS

An attack of ulcerative colitis is initiated as a rule by sudden uncontrollable diarrhea, the number of stools varying from 3 to 20 per day. Tenesmus becomes marked because of constant irritation of the sphincter by the highly acid stool. Pain may be diffuse or localized to the particular area involved. It varies, sometimes being extremely sharp and disturbing. It may come on only before the act of defecation or it may be more persistent, continuing on through and even after the act has been completed. The temperature may be of low grade, even entirely absent in recurrent attacks, or it may reach a high point in acute exacerbations with marked secondary infection. Even chills may supervene. The stools are usually thin and soup-like in consistency. Pus and blood may be passed by themselves or be mixed with fecal material. Mucus is practically always present in large amounts except in very acute cases. The passage of blood may come on with each movement or be irregular, depending upon the severity and extent of the lesion. Because of the marked loss of blood and fluid in this intractable diarrhea, anemia soon sets in and there is usually great loss of weight. Exhaustion with a marked state of nervous and physical debility frequently comes in to complicate the picture and make the treatment more difficult. It must be remembered that an attack of either acute or recurrent colitis may last for a period of weeks and even months. The abdomen may be retracted or distended at different periods. One may feel the gut through the relaxed abdominal wall contracted by local spasm; on the other hand, distention may be marked because of dilatation of either the small intestine or the colon as a whole. The entire colon may be sensitive to pressure or tenderness may be localized to a particular portion. There may be slight enlargement of the spleen, particularly in febrile cases. The blood picture is that of secondary anemia with some leucocytosis at times. There is no increase in any particular type of cell.

COMPLICATIONS

Rectal stricture is not a common complication. Arthritis occurs more or less frequently, but whether it is a true complication or an associated lesion due to vitamin deficiency or some other metabolic factor is still a debatable question. In the experimental production of colitis, joint lesions are not seen. Further, the isolation of a particular organism from advanced cases of arthritis, occurring in the course of colitis, is practically unknown. Perirectal abscess may occur. Skin lesions are at times seen, particularly one which is similar to erythema nodosum. In the healing process, a polyposis may come on and be the cause of recurrent attacks of bleeding. The incidence of carcinomatous change in the colon following colitis is a questionable one and somewhat difficult to evaluate, because the individual afflicted with carcinoma may have developed it with or without his colitis. Nephritic and cardiac changes do not occur as a rule. Eye lesions are uncommon. Abscess of the liver may be seen in colitis, either caused by or accompanied by the presence of an amoebic infection, though it is not seen in the idiopathic form. Peripheral neuritis and nutritional edema, the latter particularly, are seen rather commonly in long standing cases.

DIAGNOSIS

The diagnosis is to be made from a careful study of the history followed by thorough rectal and proctoscopic examination, x-ray studies in the more chronic cases, and blood and stool studies to be described later on. The history may be that of an acute diarrhea without any previous attacks, or the case may be one recurrent to previous episodes. The individual is usually in the third or fourth decade of life. Contact infection should be inquired into though it will be but rarely found; questions regarding sanitation at home and elsewhere thoroughly looked into.

The makeup of the individual should be studied. Many of these patients fall into a particular group from a constitutional point of view: they are high strung, sympathetico-vagotonic, autonomically imbalanced, thyroïdotropic in type. Emotional states are important in the onset of their symptoms—one because of the difficulty of a love affair—another because of a business calamity—a third, upset by results of a school examination, and so on. They are the individuals who "cannot take it," as it were. We believe this plays an important part in this disease, not as a causative factor *per se*, but as establishing a fertile soil for the onset. This, of course, does not follow in epidemics, when it may attack any and all types of individuals.

Vitamin deficiency must be looked into. There are those who believe that vitamin deficiency is an etiological factor. Experimentally, vitamin deficiency will produce colitis in monkeys and guinea pigs. It seems that the vitamin deficiency observed in humans is a result rather than a cause of ulcerative colitis. Further investigation must be made of the blood and stools; agglutination tests with the various strains of the dysentery bacillus must be done. Stools should be cultured both for the offending organism and its bacteriophage.

It is impossible, as yet, to evaluate the agglutination reaction, because statistics vary as to its positivity. It may be found to be positive in a percentage of normal individuals who have never had diarrhea. The same is true of bacteriophage, whose presence is not frequent enough to stamp its finding a positive though it is a suggestive indication. Some investigators have found phage to be positive in stools of normal persons. We, at the Jewish Hospital, are interested in the association of a positive phage and agglutination reaction; we are not yet prepared to announce the results of this work being done by Dr. W. Z. Fradkin in our department. However, these studies should be made because the question of therapy depends to an extent upon these findings.

The x-ray is only of significance when positive. It will show areas of spasm and points of irregularity due to stricture or to hyperirritability. Marked irregularity of the colon may be due to diffuse and irregular spasm rather than deformity. One must be very careful in diagnosing disabling deformity by the presence of irregularity alone. A hypermotility of the entire colon or of portions of it may be observed. Study of changes in the wall may best be made by the use of the contrast enema. Finally, of course, proctoscopic examinations must be made, during the entire period of observation.

PROGNOSIS

Prognosis is grave, not as to life itself, although fatal cases of acute ulcerative colitis are encountered occasionally, but rather as to the tendency to recurrence and disability. The tendency to recurrence is ever present; because these individuals are apparently carriers of organisms which easily become secondary invaders in a gut rendered susceptible to infection. Changes in the mucosa of the tract may occur as the result of fever reactions, acidity changes, variations in surface temperature, sudden alteration of blood supply and emotional upsets.

TREATMENT

Here is where the greatest difficulty arises. How treat an idiopathic disease? How evaluate serum and phage reactions and use them in our therapeutic management? How control diarrhea in this exhausted, high-strung, depleted, unhappy individual? How prevent recurrence?

Let us first dispose of the treatment of amoebic colitis. This has become a fairly standardized procedure: Emetine 1 grain, subcutaneously, every morning for 8-12 days is first given and results carefully watched for neuritic phenomena and cardiac weakness. Then chiniofon, $7\frac{1}{2}$ grains, three times daily by mouth for 10 days, reinforced by daily enemata of 200 cc. of a 2 per cent solution of the drug. Vioform, 10 grains daily, may be given for 10 days and repeated after one week's rest. Carbarsone is used, particularly in chronic cases, in doses of 4 grains twice a day for 10 days; it may also be used with emetine in acute cases. Acetarsones, 4 grains, three times daily for one week, is also used, particularly in carriers. Even in amoebic colitis, chronic cases offer difficulties in management. One must not give up but repeat the procedure as often

as the patient seems capable of withstanding the onslaught of the drugs used.

In idiopathic ulcerative colitis, a myriad of drugs and methods of treatment have been and are being used. Opium and belladonna, bismuth, kaolin, charcoal, tannic acid, and compounds of the last named drug have been urged by many observers. Gentian violet, 1-1000, in increasing doses of 3 to 50 cc. daily by mouth, has been recommended. Logan has used iodine and its preparations. Haskell and Cantarrow give large doses of calcium and parathormone. Some add viosterol. Hydrochloric acid has been given by some, particularly where achlorhydria is present. Liver extract and reduced iron have been urged by others. For the control of diarrhea ephedrine sulphate has been used by ourselves with some measure of success in some cases. Locally, by rectum, a host of substances has been used: boric acid, potassium permanganate, ichthyol, silver nitrate, protargol, and camomile tea have been urged. More recently, yatren, peroxide, acriflavine, and tripaflavine have been recommended. Mercurochrome has been used both by rectum and intravenously, because it is excreted by way of the colon. Dermatot and xeroform in powder form have been used locally.

Constitutionally, emetine, milk and yatren-casein have been injected by some. Blood transfusions have been used by many. Von Bergman believes in protein sensitization and uses horse serum in ascending doses. For the non-specific protein effect, typhoid vaccine and autogenous vaccines. Bargen's diplococcus serum and vaccine are likewise being used. Hurst advocates polyvalent dysentery serum and believes the results obtained to be due to a non-specific protein reaction. Bacteriophage is used by some, given both by mouth and by rectum. The results of this host of remedial measures have not been crowned with great success. Their multiplicity attests to the difficult management of this disease.

The surgeon, too, has had his day with ulcerative colitis. Appendicostomy and cecostomy have been urged in the past in order to permit a more thorough antiseptic washing of the colon from above. When the fallacy of further irritation of an already ulcerated, extremely irritated bowel was seen, other procedures such as ileostomy and ileosigmoidostomy were suggested to provide rest for this miserable colon. Finally, of course, colectomy has been advised. One needs scarcely dwell at any length upon these measures except to say they should only be used, if ever at all, in cases where every other medical agent has failed, because any surgical measure makes of the patient a case of permanent colitis.

Well, then, given a case of ulcerative colitis, what shall our procedure be? How should he be treated? The patient must be put to bed, whether a febrile reaction is present or not. The diet should consist of non-irritating, easily digestible foods, all forms of roughage being eliminated. The vitamin needs must be maintained by giving cereals, butter, cream, eggs, fruit juice, and tomato juice, in addition to all other food easily tolerated. Milk may be used or interdicted, depending upon the amount of distention caused by its use. Frequent feedings of small amounts are to be preferred over the giving of

three regular meals. An attempt to control the diarrhea should be made by the use of ephedrine sulphate, which has had some measure of success at our hands. The opiates may likewise be used to advantage. We cannot see any value in the use of bismuth, kaolin or the calcium preparations. The necessity of increasing calcium or its mobilization within the system has never been adequately proved. Irrigations are completely forbidden although instillations of silver nitrate in high dilution may be of value in a case of colitis localized to the distal colon. If one has obtained a positive agglutination reaction to one of the strains of the dysentery bacillus or a positive phage in the stool with a similar strain or preferably a combination of both, one has more definite specific evidence on which to base therapy. Then polyvalent antidysenteric serum may be used in addition to an autogenous vaccine. We must ever keep in mind that the effects obtained from this form of treatment may be due to a non-specific protein reaction. Therefore when no specific findings are obtained, non-specific protein therapy, either in the form of typhoid vaccine or polyvalent dysenteric serum or casein itself if you will, should be given. The patient's nourishment must be maintained. His diarrhea must be lessened. His immune antibodies must be built up. Last, but not least, his mental state must be energetically treated. A feeling of optimism must be instilled. A sense of hope and courage must be maintained. The patient must be taught that his psychic emotional state is of tremendous importance in getting him well and keeping him so. Both the initial attack and the recurrences, as already stated, may be due to emotional shock which, if avoided, may prevent future episodes. Your task in treating ulcerative colitis is a difficult one. It will try your patience, your ingenuity, your self control and your powers as a true healer.

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163 Eastern Parkway.

A Caution as to Sutures

Suture sparingly, and in any contused laceration treated by debridement place but do not tie the sutures until the end of the third day. In the interval cover the area by a sterile wet dressing of iodine-saline solution (Tr. Iodine one dram, saline solution one pint). This is the so-called "delayed" or "primo-secondary" suture, and there is no more important phase of traumatic therapy than this. It is the treatment for compound fractures. If we wait three days before tying the sutures, we can then be certain as to the sterility of the wound because the usual pus-producing organisms run their life cycle within that time.

—JOHN J. MOORHEAD, *Southern Surgery*.

The Challenge of Chronic Otitis Media

• Horace Gledhill, M.D., Brooklyn, N. Y.

THE comparatively large number of patients seen in clinic and private practice with a chronic discharge from one or both ears is eloquent testimony that acute purulent otitis media has not and is not receiving the thought and attention which it deserves and requires.

That in the majority of patients the condition should never have been allowed to progress to the chronic stage of the disease is too obvious to merit serious consideration. That it does so is due mainly to the unthinking and uninformed layman who neglects to seek medical advice, but it is a surprising fact that, on occasion, the guilt lies with an unwitting physician. Were the layman and physician to see the ultimate fruits of their neglect and folly, there is no ground for debate that the picture would be entirely different. If we could but disregard, as entirely untenable, the possibility of death for these patients by such serious complications as brain abscess, meningitis or septicemia, the mere fact that each day of their lives is one of chagrin and unnecessary hardships would serve to stimulate a real desire to see each case of acute otitis media carried through to its logical conclusion—a cure.

At times, one can hardly lend credence to the statements of some patients that they have been told by their physician of the past that "a running ear is a good ear," or, that "as long as the ear is running, it is all right." Such advice is not good therapy. To realize the plight of these individuals, one must see and talk with not one but many. Then only does one grasp the heavy and useless difficulties under which these people carry on.

In taking the history, it is always evident that the stories of all vary only in unessential details. They will, of course, state that the ear has been discharging for months or years. The discharge has been either continuous or there may have been times when the discharge has seemed to cease entirely, but always it has returned to frustrate the hopes of a permanent cure.

They may or may not remember what illness the otitis complicated, for many times the discharge has been present since early childhood, when the cause was of little interest. When the illness had been a serious one, a physician, they will say, was consulted, who, after the pain and discomfort of the acute stage of the otitis had passed, ceased to give the patient the careful attention the malady should have received. On the other hand, when the abscessed ear had followed one of the common and apparently harmless upper respiratory infections, no medical advice was sought because of an unfounded confidence and faith in home remedies and self-medication or because of the ever-forthcoming advice from a solicitous but extremely dangerous neighbor whose medical knowledge, to herself at least, was all-inclusive.

In any event, the result is the same unless an unexpected crisis in the form of acute mastoiditis

startles the family from its blissful confidence that all is well and the patient is saved at least from the possibility of months or years of discouragement. But if this crisis does not arise, the ear continues to discharge in varying amounts. It may be so slight as to be hardly recognizable by the patient or it may be so profuse as to be an almost constant drip from the aural canal. In consistency, it may be thin and watery, or it may be frank pus.

The treatment which has been given was of the hit or miss variety and consisted of an occasional irrigation of the canal with plain or medicated water, and, to prevent the telltale discharge from being evident, the canal was stuffed with cotton, which acts as a plug, and, unless changed frequently, prevents adequate drainage.

After unduly prolonged attempts to cure the condition with such methods, the patients were prompted to seek medical advice either by the thought that something more should be done or by the realization that the hearing of the offending ear was not so acute as it formerly had been or that there was an offensive, embarrassing and disgusting odor from the discharge. Then began the weary trek from doctor to doctor, only to add emphasis to the discouragement and hopelessness of the individual and mental confusion where hope had once been present.

To each new consultant, he recites his story, augmented from time to time as he has had to face some new embarrassment or obstacle because of his infirmity. He begins to shun social contacts because of the persistent discharge and to doubt his capacity to advance in business because of the gradual but progressive loss of hearing.

An examination of the ear shows the discharge previously referred to. There is an opening through the tympanic membrane which varies in size from that of a pinhead to complete destruction of the pars tensa. The pars flaccida or Shrapnell's membrane may be the site of the perforation, and this is not an agreeable finding, for perforations in this area are often associated with cholesteomatous masses which, if not recognized, lead to serious consequences. In large perforations, one can look directly into the middle ear, which is now lined by granulation tissue, or it may be that the granulation tissue is protruding through the perforation.

The pathological process may or may not be dangerous to the life of the patient, and it is not the purpose of this article to discuss the differential diagnosis. But even though it is not of sufficient seriousness and urgency to require a radical mastoidectomy, it means a long series of treatments, and, at times, even with the best of care, little or no progress towards a complete cure is made and the patient is burdened with the disease for life.

This, then, is the challenge of chronic otitis media to all physicians who assume the respon-

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Clinical Notes, Suggestions and New Instruments

Coronary Thrombosis, Partial Heart Block, Recovery

• Louis Faugeres Bishop, Jr., M.D. and George A. Carden, Jr., M.D.
New York, N. Y.

A CASE of occlusion of the right coronary artery with localizing electrocardiographic changes, partial heart block and recovery is reported.

CASE REPORT

Mr. S. H. F. I., a fifty-year-old painter, entered Bellevue Hospital May 5, 1935, with a chief complaint of precordial pain and dyspnea of three days' duration. For a few months prior to admission he had frequent headaches, dizzy spells, spots before his eyes, palpitation, dyspnea and occasional attacks of substernal oppression on exertion. Three days before admission, while walking on the street, he was seized with a severe substernal pain, radiating to the shoulders and both arms, accompanied by dizziness and a feeling of suffocation. Unable to walk further he took a taxicab home. Pain, dizziness and this feeling of suffocation persisted and when he reached his home he vomited three times. An ambulance physician gave him a hypodermic of morphine with temporary relief, but the pain returned and two days later he was admitted to the hospital.

His past history is not significant. Except for an attack of influenza in 1918, he remembered no other definite illnesses. He uses no alcohol nor tobacco, but drinks five to six cups of coffee a day.

The family history was non-contributory. His mother and father died at about 65 years of age of unknown causes; three brothers and three sisters all died, but the patient had no idea of the causes or circumstances.

Physical examination revealed a heavy-set, apprehensive, middle-aged Hebrew in a semi-reclining position in bed, complaining of abdominal pain. He was slightly dyspneic and cyanotic. The apex beat was not visible nor palpable, but the heart was slightly enlarged to percussion; the rhythm was regular and the rate 100; the sounds at the apex distant; no murmurs were heard. His blood pressure was 118/90 mm.Hg. The lungs were clear. Right upper quadrant tenderness and rigidity made it impossible to palpate the liver edge, but percussion did not reveal enlargement. There was marked hyperesthesia over the entire upper abdomen and over the right and left chest anteriorly. Because of the persistent acute abdominal symptoms a surgical consultation was called which agreed with the prevailing medical opinion favoring a diagnosis of coronary thrombosis. The day after admission a cardiac irregularity developed associated with a changing pulse rate, interpreted by different observers as auricular fibrillation, extrasystoles of

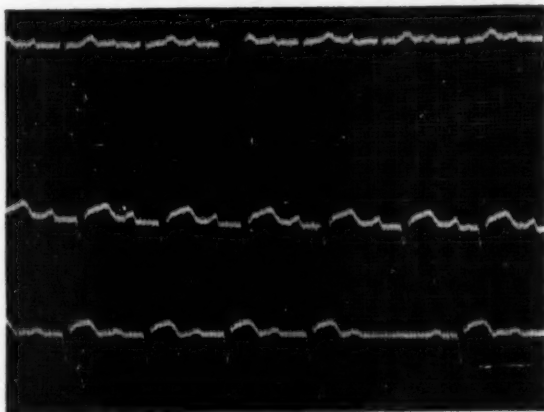


Fig. 1.—Electrocardiogram taken 5/7/35, 2 days after admission. Shows a deep Q wave, with a high take-off, sea-gull type of T wave in Leads II and III. There is a progressive prolongation of the P-R interval from .28 seconds in Lead I to .40 seconds in Lead III, with establishment of a 2:1 block in the last two complexes of the third lead.

shifting ectopic foci, and, when the rate fell to 56, as heart block. The irregularity only lasted 36 hours and did not reappear.

During the ensuing three weeks the temperature showed several transient elevations of two or three degrees accompanied by a return of abdominal pain and tenderness. The blood pressure during this period stayed around 110 mm.Hg. systolic and 70 mm.Hg. diastolic. For the remaining month in the hospital the temperature continued flat and the blood pressure rose to 130-140 mm.Hg. systolic and 90-100 mm.Hg. diastolic.

The white blood count on the day of admission showed a leukocytosis of 18,000, with a polymorphonuclear leukocyte preponderance of 84 per cent. Six days later this leukocytosis fell to 10,615; with only a 64 per cent preponderance of polymorphonuclear leukocytes. The urine was normal, the Wassermann negative, the blood sugar 111 milligrams per cent. There was an elevation of the blood NPN on the day after admission to 60 milligrams per cent, but this fell to 34 milligrams per cent five days later.

The first electrocardiogram (Fig. 1) was taken the second day after admission. The graph shows typical Q and T wave changes in Leads II and III, characteristic of an acute myocardial insult, and in addition a partial heart block. This served to clear up the debate concerning the basis of the arrhythmia noted clinically. An electrocardiogram three days later showed normal conduction, but without any further alteration in the Q and T waves. Ten days

(Concluded on page 82)

From the Fourth Medical Division, Bellevue Hospital, New York, N. Y., Charles H. Nammack, M.D., Director.

Cancer

Department Edited by JOHN M. SWAN, M.D. (Pennsylvania), F.A.C.P.

EXECUTIVE SECRETARY, NEW YORK STATE COMMITTEE OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

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A Tumor Clinic in a Rural Community Hospital

- Benjamin L. Feuerstein, M.D., Radiation Therapist, Southside Hospital, Bay Shore, New York

ONE must consider the advisability of establishing a tumor clinic, in a county hospital located in a rural district close by a large city, from several angles: (1) whether or not a clinic of this type is of value to the residents of the community; (2) whether they will attend the clinic, or prefer to avail themselves of the easy opportunity of going to the near-by city medical centers; and (3) what would be the value of such a clinic to the members of the local profession, to the community and to the county hospital.

After many years of effort and with the aid of the Suffolk County Cancer Committee, the medical staff of the Southside Hospital of Bay Shore, L. I., in May, 1934, established a tumor clinic, along the lines recommended by the American College of Surgeons. The tumor clinic staff comprised internists, surgeons, röntgenologist, radiation therapist and pathologist. The services of a follow-up and secretarial nurse were obtained.

In May, 1935, the work of the tumor clinic since its inception was reviewed. This experience, we believe, has enabled us to answer in the affirmative the question whether the benefits derived from the clinic have justified its existence.

The value of such a clinic to the patient is obvious. The opportunity of being examined by a group of physicians especially interested in the problem of cancer results in a more accurate diagnosis in a shorter period of time. Early diagnosis and prompt treatment, the most important factors in the conquest of this disease, are obtainable by the patient more readily than was formerly possible.

With several large medical centers located in a large city, only an hour's distance, it was believed by some of us that patients would prefer to avail themselves of the proximity of city facilities rather than to attend the local clinic. Our experience has proved this not to be the case. Before the clinic was established, facilities for radiation therapy were not available in this community. Patients requiring such therapy were, of necessity, referred to the hospitals in New York City. In nearly every instance patients asked regarding the possibility of receiving treatment at the local hospital, thus avoiding the necessity of traveling to and from the city, even though the distance was short. They wanted, also, to remain under the direct supervision of their family physician, which was not possible if they had to go to the city for treatment.

Two questions required answers when discussing plans for the clinic with the local physicians: First, would the new clinic result in better care for their patients? Second, what effect would it have on the relationship of the family physician to the patient? That the patient receives better care because of earlier diagnosis is self-evident. Because the patient was treated in his vicinity, closer contact was maintained between the family physician and the patient than was possible before the clinic was established. When the patient was referred to the city for treatment, the physician could follow the progress of the case only by

communicating with the institution through the mail or by attending the city clinic with his patient.

A patient is admitted to the Southside Hospital Tumor Clinic only upon presentation of a letter from his physician. Frequently the physician himself comes with the patient. After the diagnosis has been made and the treatment outlined the patient is referred back to his physician, who may either carry out the treatment himself, or, if he so desires, refer the patient back to the clinic for such treatment. In the latter case he is privileged to be present while the treatment planned is being carried out and to follow the case after treatment. In this way, at no time does the patient's own physician lose contact with him, nor does the patient feel that the physicians in his community are not capable of managing his type of case.

Patients who have no family physician, or who are unable to pay for such services, are assigned to one of the members of the clinic staff who acts as supervising physician much the same as a family physician would.

The tumor clinic is open to all members of the profession. The average physician sees few cases of cancer in his routine practice. He can, therefore, increase his knowledge of the disease by seeing a larger number of cases in a single clinic session than he may see in a year of private practice.

The public is being educated to engage and to visit a family physician regularly as a major factor in the fight against this disease. It rests, however, with the doctor to detect and interpret the early suspicious symptoms. Experience is a most valuable teacher and the tumor clinic offers a teaching opportunity to all who wish to avail themselves of it.

When the Tumor Clinic was organized, the Southside Hospital donated the use of the clinic room and the services of a nurse. In return for this courtesy the Hospital gains in professional standing. Since this clinic is organized in accordance with the rules of the American College of Surgeons it is accepted as an accredited Cancer Clinic. Thus the public is assured that the Hospital is prepared properly to care for the cancer patient. With the treatment for cancer on as high a specialized plane as it is today this is a most desirable objective for a hospital in a rural community. With the aid of the Suffolk County Cancer Committee, the Hospital was able to purchase a deep x-ray therapeutic apparatus for the new tumor clinic. The attention of the profession being drawn to these modern facilities helped make the new department a financial success. So, both professionally and economically, the Hospital has profited.

A statistical report for the first year shows a total of forty-three clinic visits. The cases seen included malignancies involving the skin, the prostate, the bladder, the cervix, the esophagus, the breast, the larynx and the lip. Many of these were, after their examination at the clinic, treated by their own family physician. In some cases,

treatment by a member of the clinic staff was requested for the patient by the family physician.

The experience and results of the past year's work have proved the need for a tumor clinic in a rural community. It has provided better medical care for the patient with a saving of time and money. It has enabled the physician to secure for his patient highly specialized care without

losing contact with the case. It has allowed the physician, if he chose, to help in the management of his patient. Finally, it has raised the professional standing of the Southside Hospital and has brought its modern facilities to the attention of the public.

12 Sunset Road.

Coronary Thrombosis

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later (Fig. II) the T waves in Leads II and III were noted to be inverted, the conduction system remaining normal. Two subsequent graphs were taken 18 and 31 days later. The first showed an

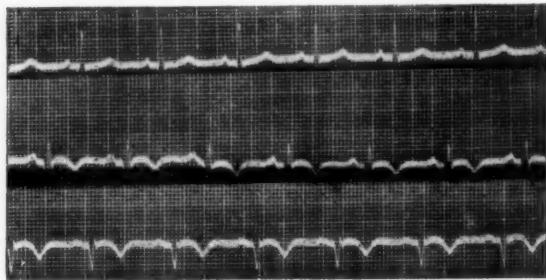


Fig. II—Electrocardiogram taken 2/21/35, 16 days after admission, shows changes in the T waves from a sea-gull type with high take-off to an iso-electric take-off, with inversion in Leads II and III. Conduction system normal.

increase and the second a decrease in the T wave negativity.

Fluoroscopic examination two weeks before discharge showed a slight enlargement of the heart to the right with slight widening of the aortic shadow. A two-meter film, combined with fluoroscopic examination one month after discharge, showed no further change in the cardiac silhouette.

Treatment consisted of absolute bed rest, Magendi's solution for the control of pain, quinidine and cathartics.

The patient was discharged from the hospital two months after admission. He was followed by us for a period of three months after discharge. During this time he had several attacks of severe upper abdominal pain, cramp-like in nature, accompanied by a watery diarrhoea, but without attendant fever, leukocytosis or fall in blood pressure. In addition he developed symptoms of a mild, rheumatoid arthritis. Consequently, he was re-admitted to Bellevue Hospital on October 9, 1935, for further study to rule out gastro-intestinal pathology and to seek a source of infection as a cause of the arthritis. A gallbladder and gastro-intestinal series failed to reveal any pathology. Aside from his carious teeth and poor oral hygiene, no other source of infection was disclosed. The dental condition was treated and patient discharged from the hospital improved on October 24, 1935.

DISCUSSION: (1)

Ball, in a review of the subject of heart block and coronary thrombosis, observed that when heart

block follows coronary thrombosis the right coronary artery is involved in 93 per cent of the cases and the left in 7 per cent. Furthermore, when the right coronary artery is occluded clinically or experimentally, the electrocardiograph shows typical T and Q wave changes in Lead III and also usually in Lead II, as demonstrated here.

When the right coronary artery is occluded sufficiently high up in the arterial tree to disturb the blood supply of the A-V node, the resulting infarction is usually large and recovery rare.

REFERENCE

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121 East 60th Street.

Acute Empyema in Children

While his paper deals with empyema in children, J. M. MASON, Birmingham, Ala. (*Journal A. M. A.*, Oct. 5, 1935), presents it with the somewhat paradoxical purpose of maintaining that the same rules should govern the treatment of the disease whether in children or in adults. The general plan of treatment that he has formulated and some of the details that he has found important are as follows: 1. After a physical examination roentgenograms are made in every suspicious case. 2. Aspiration is performed and is repeated as often as indicated in order to decompress the lung, to ascertain the character of the effusion, to determine the infecting organism and to make certain that the patient is not subjected to operation until the proper stage has been reached. Following aspiration the patient is observed frequently to see if any curative tendencies can be detected. 3. Resection of rib with drainage by tube is carried out under local anesthesia unless there is some special reason for the use of a general anesthetic. 4. The tube should be of large caliber, placed at the most dependent part of the cavity. It should be so fixed to the edge of the wound that it will neither slip into nor out of the empyema cavity. 5. Following the operation the wound is covered with a large dressing of sterile gauze and this is changed as often as it becomes soiled. After the first forty-eight hours a change will rarely be necessitated oftener than once a day. 6. Irrigations are not employed in the post-operative treatment unless some special indication is noted. 7. The original tube may remain undisturbed for from seven to ten days; after that it should be changed daily, and its length and diameter diminished to conform to the needs of the lessening size of the abscess cavity. The progress of obliteration can well be observed by the frequent use of the x-rays. 8. Any sudden rise in temperature in a convalescent patient demands prompt investigation of the drainage tract. If no obstruction is found, diligent search should be made to ascertain the source of the trouble. In children this will often be found in the intestinal canal or in the middle ear. If a rise of temperature occurs after the removal of the drainage tube, it usually indicates that the tube has been removed too early and must be replaced unless some other definite cause for the rise can be discovered. When a pleural abscess has been drained and the temperature does not show a definite tendency to subside, other areas of encysted empyema should be sought for, since recovery will be delayed until each pocket has been drained. The author employed the foregoing plan of treatment in the forty patients who were under his personal charge, with only one death.

Special Article

The Anatomy and Physiology of Our Society

• Henry Joachim, M.D., F.A.C.P., President, Medical Society of the County of Kings and Academy of Medicine of Brooklyn. Brooklyn, N. Y.

DR. READ, Fellow Members, Guests, I am deeply grateful for the honor you have conferred upon me to head our Society. I appreciate the tribute and in return I pledge you application, work and cooperation with my fellow members, to make this administration meet your expectations and approval.

I joined the Society in March, 1907. At that time the membership of the Society numbered 778. Of 1589 physicians in Kings County, approximately 50% of the profession were members of our Society. The income was \$18,457 and expenditures were \$12,324. Our library contained about 40,000 volumes and the readers numbered about 2,000. There were only 7 standing committees. Compare these figures with those of the year just ended. Our membership on December 31, 1935 was 2,383. There were, in all, 4,034 physicians registered in this Borough. Approximately 60% are members of organized medicine. Our income for 1935 was \$73,000 and the expenditures were \$70,901. Of this income \$22,668 went to the State Society, leaving us approximately \$50,000 income. Our library contains 137,331 volumes and the readers numbered 15,957. At present we have over 20 committees and over 25 sub-committees. What a phenomenal growth in a period of less than thirty years.

The founders of our Society and their successors were conservative men who builded well, but there comes a period when changing times must be recognized by adaptations or innovations, or else a period of stagnation or retrogression ensues.

What I say in the following remarks must not be construed as disrespectful, disparaging or derogatory criticism of these gentlemen.

The period following the War was attended by a distinct revolutionary, modernistic change in literature, economics, art, music, drama, architecture and so forth. A group of younger medical men reached their maturity at that time. They sensed and recognized the changing conditions and visualized the effects on the future of medicine. They realized the necessity of the education of the lay public in matters medical, the cooperation of the press in affairs of the medical profession which previously had been zealously guarded, the need of postgraduate education and many other activities.

In 1922 at the Centennial of our Society, it was our good fortune and good judgment to have as our President one of these gentlemen, who, at that time, was considered by the conservative group as a radical, a reactionary and a revolutionist. I refer to the late Dr. Frank D. Jennings, whose devotion and unceasing and untiring efforts in the cause of organized medicine were a contributory factor to his untimely death. His portrait on yonder wall is a visual reminder of his services and inspiration to our society. As Dr. Charles A. Gordon, a disciple of the Jennings' School, so aptly remarked, "The renaissance of the Medical Society of the County of Kings began with Frank D. Jennings." I, like many of you present, had not the faintest conception of the various manifold activities of our Society until I had the privilege of taking an active interest during the Jennings régime. I soon recognized what our Society stands for, what its accomplishments were and its value to the medical profession and community. I have often been asked by my fellow practitioners just what does the Society accomplish for the profession besides giving us a library and scientific sessions. I therefore thought it might be timely to answer this challenge in my inaugural address, which I have named "The Anatomy and Physi-

ology of our Society," or, in other words, the set-up and activities of the Society. Reference to the chart will explain the structure. I can touch but briefly upon the activities of the various component parts.

We have nearly 2400 members who elect the following officers of the Society—the President, President-Elect, Vice-President, Secretary, Associate Secretary, Treasurer, Associate Treasurer, Directing Librarian and Associate Directing Librarian. Now, two years ago it was found necessary to create the office of President-Elect for the simple reason that the President was always elected on the last Tuesday of December, which hardly gave him time to organize his committees or to secure the various speakers for the Scientific Sessions and for the Friday afternoon lectures. It was then thought feasible to have the office of President-Elect created, so that he could familiarize himself with all the functions and activities in the year preceding his advancement to the presidency.

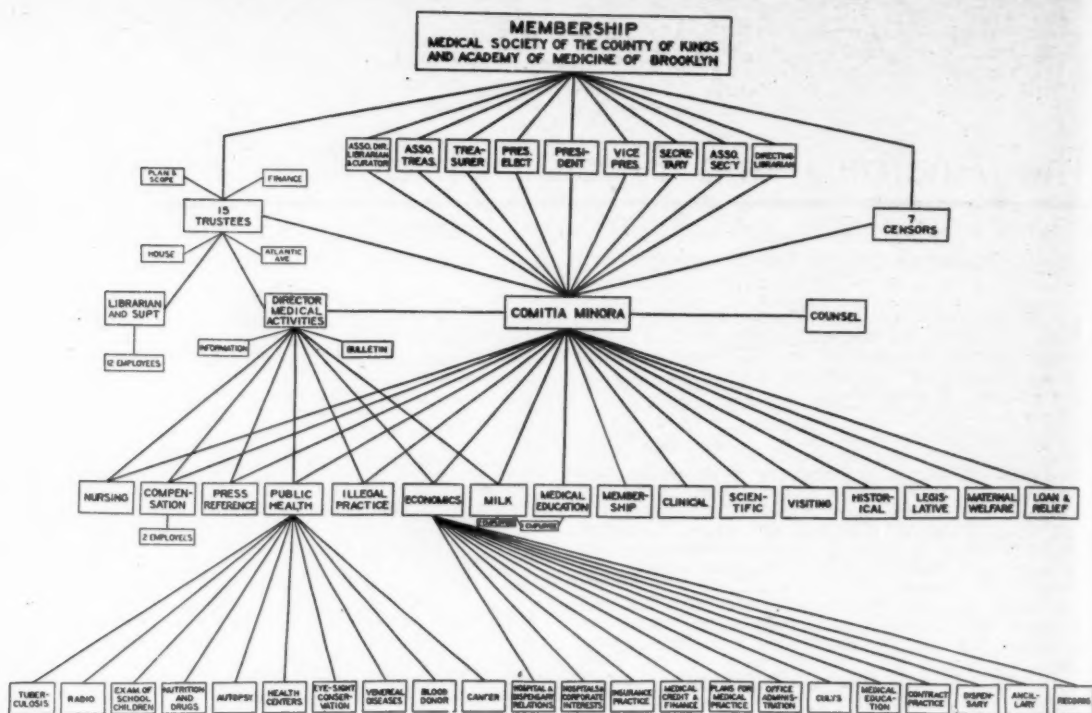
There are seven censors who serve for a term of two years. Three were elected one year and four the succeeding year. Now, the functions of the censors are to investigate all new applicants for the Society, to look up their credentials, to try men on charges of misconduct and to recommend to the *Comitia Minora* dismissal from the Society or suspension or censure.

The other elective officers of the Society are the Board of Trustees, consisting of 15 members who serve for a period of 5 years each. There are three Trustees elected each year. The function of the Board of Trustees concerns itself with that of monies such as the income of the Society, the expenditures of monies and the physical plant of the Society. They, in turn, have four committees. The Finance Committee prepares the budget and invests the monies of the society. There is a Plan and Scope Committee. The House Committee looks after this particular building and since we are property owners and own the property at the corner here and some of the property on Atlantic Avenue, the direct management of that property is vested in a special committee of this Board of Trustees.

Now, the elective officers of the Society, and the seven censors and the fifteen Trustees constitute a body which was formerly known as the Council of the Society but which, for the past year, has been known as the *Comitia Minora*. On that, the Director of Medical Activities and the Counsel are present by invitation.

The Board of Trustees appoint two very important individuals without whom the Society could hardly get along. I refer to the Librarian and Superintendent, Mr. Charles Frankenberger, and the Director of Medical Activities, Dr. Alec Thomson. Now, while I am mentioning the Librarian and Superintendent, I think this may be a good place to discuss somewhat the library of our Society. Mr. Frankenberger, as you know, is a recognized Medical Librarian in this country. He is the past President of the Medical Library Association and a good deal of the success of our library is due to Mr. Frankenberger. The venerable Dr. Browning is directly responsible for the growth of this library from the small number of volumes that I mentioned originally of 40,000 to the present number of 137,000 volumes. We have some crying needs in our library. We now have 137,000 books and we have stack room for just 100,000 volumes. Some are stored in the cellar; and in every available inch of space. One of the needs is an endowment, something by which we can expand the use of our library so that we can have adequate facilities for storing some of these volumes. In addition, we receive 1,524 current journals which are filed and which are ready for reference.

Inaugural address, delivered January 21, 1936.



We have room for only 518 journals on our racks. Now, you see that we can accommodate just one-third of the number of journals which we receive. Our reading room can accommodate, at most, 22 readers. There are many times when the readers are scattered throughout the building in section rooms and in Committee rooms and it adds much more work to the library staff to furnish the books to these individuals. We have some endowment. The endowment is about \$45,000, but unfortunately the money has been so invested, particularly in guaranteed mortgages, that the income from this amount is barely \$1200 a year. What we do need is a much larger endowment so that we can expand our library facilities. We have the fourth largest medical library in this country.

Under the Librarian and Superintendent, there are 12 employees. Some are in the library and directly assist in filing and keeping the records of the library and the others are in the Executive branch of the building.

Now we come to the Director of Medical Activities, known as D.M.A., who is one of the busiest men in our Society. Without him, I do not know what we would do. Besides being editor of the Bulletin, he is the information bureau of the Society. He receives 300 or 400 telephone calls every month. He has to refer these calls to the proper persons. He has to attend many extramural meetings. He is on all of these committees here (indicating). He is quite a busy man.

The *Comitia Minora*, which consists of your officers, trustees and censors, and the medical director and counsel, has the following standing and special committees. I can only touch on some of the functions of these committees. Some of them are self-explanatory. The Nursing Committee, for instance, has made a survey of the nursing situation under Dr. Jean Curran last year and that report will be published. During the régime of my predecessor, a Compensation Committee was appointed under the new law which, as you know, provides that all physicians must be registered to do compensation work. Besides that, it classifies them as to the type of work which they are qualified to do. For instance, a man who is a general practitioner cannot register or qualify under general surgery or as an ophthalmologist. The Compensation Committee has two employees.

Another important committee is the Press Reference

Committee. During the time of Dr. Frank Jennings' régime, this committee was instituted. Heretofore, the press would print medical news which had never been confirmed and mislead the public. Dr. John Jennings is Chairman of this Committee. When the press has some medical news, they call up the Society, and are referred directly to Dr. Jennings, who assigns them to a man who is a specialist on the particular branch on which the press wishes information—for instance, the night before last you read of some asthma cure and there were large headlines in one of our daily papers. This was immediately referred to one of the members of this committee who is a specialist on allergy and this gentleman gave a conservative statement as to the status of this particular cure. When the Dionne quintuplets were born, our telephone was deluged for expressions of opinion and as to how many other cases of this nature had been reported in the country. These newspaper inquiries were directed to a competent obstetrician who was able to give an opinion.

The Public Health Committee is a very important committee. It has, amongst its sub-committees, a committee on tuberculosis which, for the past year or two, has been making a survey of the tuberculosis situation in this country. They have succeeded in doing one good piece of work. Heretofore when a tuberculous patient was admitted to a hospital he was treated almost like a leper. As soon as he had a positive sputum, out he went, either to one of the city hospitals or to a sanitarium. We have now been able, through this committee, to succeed in having some of these hospitals keep these patients as regular hospital patients without transferring them.

Another important sub-committee of the Public Health Committee is a committee on Radio. This committee is a publicity committee which has 15 minutes once weekly over one of the local Brooklyn stations to broadcast certain topics of interest to the lay public.

There is a committee appointed to study the question of autopsies. They have contacted the undertakers in town, who have assured them of their cooperation so that we can secure a larger percentage of autopsies.

There is the Health Center Committee. This works in conjunction with the various centers such as in Greenpoint and acts as a liaison officer between the Health Centers and the Board of Health.

Recently there has been an Eye-Sight Conservation Committee appointed for the study of eye-sight conservation. A committee has also been established for the study and control of venereal diseases.

Lately it has come to the notice of some of our members that blood donors were not supervised; that men have offered themselves as blood donors whose hemoglobin was only 50 or 60%. The Chairman of the Public Health Committee, Dr. Warren, thought that there should be some supervision of blood donors. We are working on this phase now and we hope to institute some registered blood donor agencies to which a physician can apply and be assured that a blood donor is a fit subject as a donor rather than as a recipient, as some of them have been.

As you know, the Cancer Committee has made a lot of studies on cancer. You see all the bulletins throughout the year on the early diagnosis of cancer, the study of cancer and the control of cancer.

This brings us to the Economics Committee. You gentlemen have been vitally interested in the question of economics and within the past year we have made a special study, or tried to make a special study of economics. I know how hard this committee has worked. I have attended many of the meetings myself. Now, of course, the cry has been a good bit that the hospitals and dispensaries are usurping and taking over what rightfully belongs to the doctor. Some of the members of this committee have been in touch with various hospitals and various dispensaries and have been assured of some cooperation. At least, they are not going to be antagonistic to us. It has also been found that many hospitals and other organizations and corporations practice medicine. Your committee is now conferring with these institutions.

Many of you have had experience with so-called collection agencies who collected and never turned over any money to the doctor. It is the function of the economics committee to certify the status of some of these collection agencies and to determine whether they are bona fide.

Another important committee is for the study of plans for medical practice. That is rather an important committee and you heard at the last meeting various medical plans which were presented.

The question of cults is self-explanatory. There are certain cults which are practicing medicine illegally. The Committee on Medical Education is for the education of the lay public in matters economic as far as the doctor is concerned.

The Contract Practice Committee is an active committee which investigates the so-called Ten-Cents-A-Week medical societies and certain lodges which exploit the doctor.

Now, for the ancillary services. This includes certain x-ray laboratories and certain pathological laboratories that are practicing medicine without the supervision of physicians; that are rebating and have actually no right to practice; whose reports are worthless. These are being investigated and it is suggested that they be licensed. Some of them are licensed by the Board of Health but they must be under control. You have often received x-ray films from commercial laboratories which were practically worthless, and sometimes interpreted by men who have no right to interpret them.

Then there is a committee on Records which keeps on file all literature pertaining to economic medicine.

The next committee is the Milk Commission. As you know, there is such a thing as certified milk and the milk dealers allow the Milk Commission a certain percentage for certifying the milk. We have employees, men who are bacteriologists, men who investigate the dairies. The Milk Commission receives about from \$25,000 to \$30,000 a year for certifying milk, carries on studies of the bacteriologists and the veterinarians, and, in addition, publishes some of the bulletins and gets up some of the circulars which the Society issues.

A committee on Medical Education was instituted by Dr. Frank Jennings. Post-Graduate courses in conjunction with the Long Island College of Medicine are conducted at the various hospitals.

We have the Practical Lecture Series which are delivered on Friday afternoons. The time is 4:30 and I know that this coming year Dr. Greenwald, who is Chairman of this Committee, has some of the most excellent speakers, men of repute who will speak to you on practical subjects pertaining to the various branches of medicine.

The Membership Committee, of course, is one of the most important committees. Without members, we have no Society. The last chairman of the Membership Committee made a phenomenal showing. I think there were close to 300 new members who entered this Society in the year 1935. I hope his successor will equal this record.

The Scientific Committee is the one which arranges the scientific programs at the stated meetings on the third Tuesday of each month. Dr. Frank Cross has arranged some excellent programs.

The Historical Committee is making a file of the records of the various members of this Society. At some time a questionnaire has been sent out asking for the member's biographical data and list of publications.

Another important committee is the Legislative Committee. As you know, there are constantly bills coming up in Albany which are inimical to the medical profession and to the laity. There is, at present, a bill which again will retard progress in medicine—the anti-vivisection bill. The bill is coming up in short order and I think it is important for this Society to voice its opposition to this bill. The bill states specifically, if passed, that no dogs must be used for animal experimentation.

The Maternal Welfare Committee is self-explanatory. Another special committee is that for loan and relief. This committee is supported by purely voluntary contributions. There was a function held last Saturday night at one of the hotels in this town under the auspices of the Doctors' Club at which \$3,000 was raised for this committee for the benefit of the doctors.

Now, gentlemen, since this chart was completed in December, I found out we have six more committees. One of them is the Joint Medical and Dental Committee. Then we have a Professional Guidance Committee. This could be an important committee. It has not functioned actively in the past year. This committee is for the young practitioners who seek advice as to where to locate, how to associate himself with the proper type of hospital or dispensary, and what contract practices to avoid. This committee could be of vast service to the young practitioners. At the last session of the *Comitia Minora*, a committee on Sections was instituted. As you know, we have a section on pediatrics. We are contemplating a section on historical medicine and some other sections. Another committee is the one on expansion of our building, known as the Jennings Memorial Building Fund Committee which is undertaking a vast building program to enlarge this building and to enlarge our library so that we shall have adequate facilities.

The past two months we have received at least three or four applications in which individuals or organizations have decided they would like to present portraits of deceased members of the Society. It was deemed necessary to establish a Committee on Portraits so that we could have a certain uniformity as to size and frames.

This gives you a faint idea of the activities of this Society. In conclusion let me say the founders of the Society and those who have succeeded them as officers have unstintingly and unselfishly given of their time and money without the expectation of any reward or glory except in the knowledge that they have served their fellow men. It is this spirit which has been responsible for the healthy growth of our Society. Our younger members must be infected with the spirit of rendering service and the only reward to be expected is the satisfaction of having rendered such a service.

Prevalence of Mild Brucella Abortus Infections

In the last few years the profession has become increasingly conscious of the prevalence of undulant fever. But W. BEECHER SCOVILLE, New York (*Journal A. M. A.*, Dec. 14, 1935), does not think that it has yet realized how common the subclinical and ambulatory forms may be. He is of the opinion that many such cases may masquerade under the guise of infectious arthritis, nervous exhaustion, undiscoverable focal infection and chronic neutropenia. In his case of mild ambulatory brucella infection with normal or nearly normal temperature and negative agglutination titers, but markedly positive skin and phagocytic tests, there were enough subjective symptoms to cause incapacitation, yet with little enough objective signs to cause a diagnosis to be made of neurasthenia, chronic neutropenia and undiscoverable focal infection.

Economics

Department Editor: THOMAS A. MCGOLDRICK, M.D.
Assisted by LEWIS A. KOCH, M.D.

Spearheads and Wedges

DURING the months of February and March the United States Treasury will pay \$4,446,662.66 to states with approved plans for assistance to the needy aged, to dependent children, and to the needy blind. The Federal Government will match state funds dollar for dollar in the case of aid to the needy aged and the blind, and one dollar for each two dollars disbursed by the states for aid to dependent children. An additional 5 per cent of the Federal grants to the states for old-age assistance and aid to the blind will be paid to the states to share the cost of the administration of these two forms of public assistance. Twenty-one states shared on February 14 in the first Social Security grants.

These payments were provided by Congress under the provisions of the Deficiency Appropriation Act, which included the first appropriation to the Social Security Board.

A number of other states have submitted their public assistance plans for approval by the Board and still other states are expected to do so shortly.

The Hospital and Medical Education

The many functions which the teaching hospital is supposed to fulfil call for constant study and modification. No better illustration can be given of the thought and work necessary to keep a hospital in its place than the recent report of Dr. Eugene F. Du Bois, physician-in-chief to the New York Hospital. The great menace in the medical sciences at the present time, according to Du Bois, is an overabundance of mediocrity. In a department such as medicine, mediocrity can never be eliminated; but at least certain measures can be taken to check its growth. There must be a spirit of self examination; when comparisons with other institutions are made, only the best in the country are to be considered.

The problems of the hospital fall naturally into several divisions. The routine care of patients and the administration of drugs appear simple, yet they are extraordinarily complex, much more difficult than the fundamental sciences, because they involve not only these fundamental sciences but also the human element. The testing of a new drug or the evaluation of an old one requires a technic and judgment that can be obtained only by the long and strict mental discipline that prevails in hospitals permeated by the spirit of careful investigation. In this attitude the hospital ward has long had leadership. The importance of the dispensary adjunct in the care of patients has often been somewhat neglected. The primary purpose of the latter is the early recognition of disease and the prevention of serious developments. In the New York Hospital this function has been well served by the organization of one large general medical clinic and eleven small special clinics. The general medical clinic tries to perform the functions of the general practitioner, the family doctor, taking care of the great bulk of the patients and referring to the specialist only those who need their special methods of diagnosis or treatment.

Financial problems have, of course, loomed large in recent years. The Cornell Clinic, which was included in the present organization, had been operated for several years as a pay clinic that endeavored to provide adequate medical care for the so-called white collar class, which comes between the ordinary dispensary group, and those who can afford to pay their private physician. The patients were charged, on an average, \$1.50 a visit, and the doctors were paid at the rate of from \$5 to \$7 a session. In spite of small quarters, the

The initiation of this system is of particular interest to the medical profession for a number of reasons. First, there are the obvious medical implications in it; second, the allowances are too low to alleviate notably the actual plight of the recipient; third, to the degree that their plight is alleviated the industrial machine is relieved of a part of its social obligations; fourth, that part of the Social Security program now in effect was originally intended to be the spearhead and entering wedge of health insurance in its harryhopkinsonian form.

One fundamental truth, from the medical point of view, remains unimpaired. Were labor to receive a fair share of the profits of industry programs such as the Social Security activities of the Government would lose point, and the medical profession would not be harassed by threats of compulsory health insurance. So long as the present order continues it is only the medical ostrich who keeps on saying to himself, "It can't happen here."

professional work was maintained at a high standard and the doctors were able to afford to give a considerable amount of time to the clinic. The criticism on the part of the profession at large that the patients were diverted from private practice was met with the argument that the doctors were paid for their services. After the amalgamation no provision was made to pay the doctors, most of whom were suffering acutely from the effects of the depression. They found themselves treating in the dispensary patients whom they would be glad to treat in their own offices for the same fees. The resultant criticisms, Dr. Du Bois feels, have been in the main justified and efforts are being made to correct some of the present faults.

There is no greater help in maintaining high hospital and dispensary standards than the continuous presence of medical students. As previously indicated, emphasis has been placed in the dispensary on teaching, and senior students now spend a greater proportion of their time there. The responsibility for training goes further than medical students, and good facilities are desirable for those more advanced. Although interns are given much responsibility, they are carefully supervised. The residents, who have all previously served internships, obtain a broader experience in special clinics and laboratories and in consultations. The junior members of the attending staff work in the wards and in the dispensary and help in the teaching. Many meetings are organized for the purpose of mutual instruction.

The problem of the part-time and the full-time staff has not proved especially difficult. For the most part there has been harmonious cooperation between the two groups and Du Bois feels, judging from his personal experiences with both forms, that the quality of work does not differ materially. Research is an integral part of the function of the teaching hospital. Because of the close affiliation of the Russell Sage Institute of Pathology and the good equipment of the various departments, both clinical and fundamental research find satisfactory encouragement. The importance of this fact cannot be overestimated, since it is clearly recognized that it is impossible to obtain the services of the best clinicians in an institution that does not foster research. —*Jour. A. M. A.*, Feb. 1, 1936.

There were 12 deaths from automobile accidents in Rhode Island last month. That from the smallest state in the union!

Contemporary Progress

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NEUROLOGY

Cerebrospinal Fluid in Tumors of the Brain

H. H. Merritt (*Archives of Neurology and Psychiatry*; 34:1175-1187, Dec., 1935) reports the findings at lumbar puncture in 182 cases of tumor of the brain in which the diagnosis was confirmed at operation or autopsy. He also presents a study of the relationship between the protein content of the ventricular fluid and that of the lumbar fluid in 86 of these cases and 19 other proved cases; and the significance of this relationship in the localization of the tumor. In the lumbar punctures, it was found that the pressure of the cerebrospinal fluid was usually above normal (70 per cent over 200 mm.). The fluid was xanthochromic in 28 per cent of cases. The cell count was usually normal; in only 17 per cent was the cell count more than 10 per c.c. The protein content of the lumbar fluid was increased in cases in which the walls of the ventricles had been involved by the tumor, and in cases where the tumor was in the posterior fossa. The author notes that the findings in the cerebrospinal fluid in abscess of the brain are similar to those in cases of tumor of the brain; the chief point in differential diagnosis is the cell count, as in brain abscess 75 per cent of cases show a cell count over 10 per c.c. In the study of the protein content of the ventricular fluid in comparison with that of the lumbar fluid, the fluid is withdrawn from the two lateral ventricles separately, but at the same time; the lumbar puncture may be done twenty-four to seventy-two hours before the ventricular puncture. From this study, the author concludes that: When the protein content of the lumbar fluid is high and that of the ventricles normal, the tumor is in the posterior fossa. When the protein content of the lumbar fluid and that of both ventricles is high, the tumor is in the third ventricle or the corpus callosum, or there are multiple (usually metastatic) tumors. When the protein content of the lumbar fluid and that of the fluid from one lateral ventricle is high, the tumor is on the side on which the ventricular fluid shows the increased protein, and the tumor extends deeply enough into the hemisphere to involve the ventricular wall.

COMMENT

We agree with the author that the dangers of withdrawing cerebrospinal fluid have been overstressed. As stated, when intelligent precautions are observed, virtually no real danger exists. The only possible contraindication is a suspected tumor in the posterior fossa. Even here, where care is used, no real damage is done. Certain types of syphilis simulating a neoplasm can only be diagnosed in this way.

I do not feel that trephine openings are justified simply for studying the relative content of the ventricular versus the spinal fluid. If in the course of a procedure for air injection the fluid is removed for analysis and then certain findings, elicited by Merritt, are discovered, due recognition of these findings should be given.

This is not meant to be a criticism of Merritt's experimental work. I have yet to see a tumor where such elaborate fluid studies have been necessary for proper localization. However, the proper correlation of all information in a brain tumor suspect, of which the spinal fluid is just one point, is absolutely essential.

H. R. M.

A New Treatment for Cerebral Hemorrhage

R. Colelia and G. Pizzilo, of the University of Palermo, Italy (*Journal of Nervous and Mental Diseases*; 82:652-659, Dec., 1935), report the treatment of cerebral hemorrhage of all types by intramuscular injections of the patient's own blood (autohemotherapy). Twenty-five to 30 c.c. of blood is withdrawn from a vein of the arm or foot, preferably into a syringe containing a few c.c. of a 25 per cent sodium citrate solution. This is immediately reinjected deeply into the muscles of the gluteal region on the uninvolved side. Whatever the cause or origin of the cerebral hemorrhage the authors have always observed some improvement following this procedure, and in many cases improvement is marked and recovery rapid. In cerebral hemorrhage due to trauma results are usually excellent, especially if treatment is given early. The treatment is of value in cases of apoplectic stroke (ictus); in patients with arteriosclerosis who show prodromal symptoms of vertigo, weakness of the limbs, and unilateral tremor prompt treatment may prevent an actual stroke. In hemorrhage with thrombosis and embolism, this treatment is less effective. The authors note that the theories in regard to autohemotherapy are "numerous and vague." They do not attempt to explain its action in cerebral hemorrhage but merely record their clinical experience as to its value.

COMMENT

The reviewer has had no experience with this procedure. In fact the whole idea is new to him. The abstract is presented because of its novelty, in the hope that others may gain some benefit from its perusal.

H. R. M.

The Peripheral Nerves in Subacute Combined Degeneration of the Cord

J. G. Greenfield and E. A. Carmichael (*Brain*; 58:483-489, Dec., 1935) report a study of the peripheral nerves in 4 cases of pernicious anemia with subacute combined degeneration of the cord, in comparison with cases of alcoholic neuritis and acute infective polyneuritis, and cases of cerebral tumor and cerebral arteriosclerosis. In 3 of the cases of subacute combined degeneration and one of the cases of alcoholic neuritis, the material was obtained during life by dissecting out the terminal portion of the anterior tibial nerve under local anesthesia; in the other cases, at autopsy. The nerves were placed in 1 per cent osmic acid for twenty-four to thirty-six hours immediately after they were removed from the body, and then fixed in paraffin. It was found that in subacute combined degeneration of the cord, there was a definite reduction in both the number and the size of the myelin sheaths of the peripheral nerves; and that this reduction resembles that in alcoholic neuritis in type, although not of the same degree. This may be accepted as evidence that there is "a true degeneration of the peripheral nerves in this disease." The findings indicate that the nerve fibers suffer a general impoverishment of myelin. Although in these studies "nothing was ever seen suggesting Wallerian degeneration," this type of degeneration may occur in individual fibers in severe and rapidly progressive cases, but it is evidently exceptional.

COMMENT

Although the picture of subacute combined sclerosis (posteriorlateral sclerosis) is the classical neurological condition associated with pernicious anemia, we see varying degrees of neurologic disturbances, such as painful polyneuritis and even the picture of a myelitis with all modalities of sensation disturbed. These complications are uncommon but they do occur.

Behind both the nerve and the cord changes may be a common factor—vitamin deficiency plus.

In Case 4 of the series a postmortem examination revealed undoubted changes in the spinal cord characteristic of pernicious anemia. The study would seem to prove that in certain instances there are destructive changes in the peripheral nerves either as part of the same pernicious anemia picture or as an independent degenerative state.

H. R. M.

Hyperthermia Due to Lesions in the Hypothalamus

B. J. Alpers (*Archives of Neurology and Psychiatry*; 35:30-41, Jan., 1936) reports 2 cases in which after an operation on the base of the brain, there was a high degree of hyperthermia. The temperature continued to rise progressively until death, which occurred within forty-eight hours. The nature of the hyperthermia was similar to the temperature reaction following manipulation around the region of the pituitary gland in fatal cases. In both cases autopsy showed lesions in the substantia grisea of the third ventricle, corresponding to the area found in experiments on cats to be involved with loss of temperature regulation.

Ventriculography with Colloidal Thorium Dioxide

W. Freeman, H. H. Schoenfeld and C. Moore (*Journal American Medical Association*; 106:96-100, Jan. 11, 1936) report the use of colloidal thorium dioxide for ventriculography. The authors have found that this substance is of definite value as a contrast medium for ventriculography. It has the advantages of being freely miscible with the ventricular fluid; of high specific gravity so that it reaches the dependent points and recesses of the ventricles; and of high radiopacity so that relatively small amounts are required to give satisfactory visualization. In normal cases it is eliminated within four hours, and it causes only mild inflammatory reactions. "Most important of all, it preserves the supporting fluid cushion of the brain, and avoids the serious constitutional effects of air ventriculography." In 20 cases in which ventriculography has been done with colloidal thorium dioxide, one patient died within an hour or two; autopsy showed a "huge" infiltrating glioma in the basal ganglions blocking the foramen of Monro. There were moderately severe reactions in 2 cases, both with ventricular obstruction. Most of the patients felt "transitory discomfort ranging up to easily controllable headache." The first patient for whom this method was used is "in his usual health" twenty months after the injection.

Clinical Significance of the Protein of the Cerebrospinal Fluid

V. Kafka (*Deutsche Zeitschrift für Nervenheilkunde*; 138:154-164, Nov. 12, 1935) notes that a study of the protein of the cerebrospinal fluid is of definite diagnostic value, and is a necessary part of the spinal fluid analysis. Not only the determination of the total protein, but also the determination of the globulin : albumin ratio is of importance. In general paralysis, the total protein is increased and the globulin greatly increased, while the albumin is diminished; the globulin : albumin ratio in this disease, when untreated, is the highest found in any condition. In cerebral syphilis, the total protein is also increased and the globulin increased but the albumin shows a relatively greater increase so that the globulin : albumin ratio is definitely lower than in general paralysis but not below normal. In acute infectious meningitis, the total protein is markedly increased and this increase is due

chiefly to the albumin, the globulin is relatively low, and the globulin : albumin ratio below normal. In some conditions in which the total protein is not increased there may nevertheless be a change in the globulin : albumin ratio, which is of special importance in regard to other reactions of the fluid. In brain tumor, for instance, the globulin is relatively increased, but the colloidal reaction is negative.

COMMENT

An important paper! It stresses a point which should be given more attention in analysis of the spinal fluid. If there is to be an examination of the fluid for total protein it should be examined in some detail for its two main ingredients—globulin and albumin. Their quantitative estimation does have clinical significance.

The fact that syphilis is suggested in cases where the increase of globulin is above that of albumin is not new. The point that the ratio of globulin to albumin is highest in general paresis is worth while taken.

H. R. M.

PHYSICAL THERAPY

Treatment of Asthma By Ultra-Violet Light

G. H. Day (*British Medical Journal*; 1:8-11, Jan. 4, 1936) reports the treatment of asthma with ultra-violet irradiations. An "Alpine Sun" lamp (Hanovia) is used, and irradiations given to the whole body, back and front, at a distance of forty inches from the lamp. The best dosage was found to be "that which produced a uniform erythema lasting twelve to twenty-four hours." The time of the first exposure varied in different individuals from four to eleven minutes; and each successive exposure was about one and a half times as long as the previous one. As the skin becomes pigmented, an erythema cannot be produced without greatly prolonged exposure, and the author has found it best to discontinue treatments when pigmentation is marked until it fades and the skin shows its normal "erythema response." The author has found that this treatment results in marked improvement in asthma, and that after a series of treatments patients may remain entirely free from asthma for months. If there is any recurrence of symptoms, a new series of treatments will usually abort an attack. In none of the cases treated did pulmonary tuberculosis develop either during the treatment or after. The fact that the duration of the immunity conferred is closely related to the depth of pigmentation obtained leads the author to suggest the theory that the ultra-violet light stimulates the production of the parent substance of both adrenalin and melanin, which he calls "dopa-substance." This dopa-substance is carried by the blood stream to the adrenals, where it is converted in part into adrenalin, which maintains the sympathetic tone. Excess of the dopa-substance is converted and fixed by the epithelial cells as melanin granules, and this is a potential store of adrenalin.

Treatment of Lupus Vulgaris with Artificial Light

J. E. M. Wigley (*British Journal of Physical Medicine*; 10:108-110, Nov., 1935) reports the treatment of lupus vulgaris by general light treatments combined with local treatment of the lesions by the ultra-violet rays. For the general treatment the author uses a carbon arc lamp; the light baths are given daily or every second day; beginning with a dose producing a moderate erythema, the dose is gradually increased to the maximum of an hour's exposure, care being taken to avoid a marked erythema. If a marked erythema is produced, treatment is stopped for a few days and begun again with a smaller dose. This treatment is not continued as a rule more than three months at a time without a rest interval of about a month. Any sign of fatigue or loss of weight is an indication to suspend treatments for a time. For the local treatment the Finsen lamp, as modified by Lomholt, is used. For good results scrupulous care is essential in the details of the technique—the correct adjustment of the apparatus and the correct placing and careful surveillance of the patient during the treatment. Another essential is regularity and

frequency of treatments. All the diseased areas should be treated thoroughly "time and time again" with as short an interval between irradiations as possible. With even the most vigorous and careful treatment, the author has found that about 15 per cent of cases of lupus vulgaris are resistant to ultra-violet irradiation. But in most cases the treatment gives excellent results, and "ideal cosmetic results" with "soft, supple and often scarcely visible scars" and "without any tendency to atrophy, ulceration or malignant degeneration."

Physiotherapy of Winter Skin Troubles

W. J. O'Donovan of the London Hospital (*British Journal of Physical Medicine*; 10:144-145, Jan., 1936) discusses the value of physiotherapy in various skin troubles that occur during the winter or are aggravated by cold weather. Chilblains that become severe and recur year after year, he has found, are best treated by infra-red rays applied to the affected region from a large standard installation for twenty minutes daily, followed by a general ultra-violet light bath, using a mercury vapor lamp. In case the ears are badly affected, local treatment with a mercury vapor lamp should be substituted for the infra-red radiation. If such treatments are given from November until February, the patient can carry on the winter season's work in comparative comfort and the following year's attack will be less severe. Bazin's disease (tuberculosis of the hypoderm of the legs) with ulceration is treated by a general light bath with a carbon-arc light six days a week, combined with treatment of the lesions by a Kromayer lamp, two minutes exposure at least two feet distance from the ulcers daily. The author has obtained better results with this method than with the x-rays, sometimes recommended for this condition. In severe chapping of the hands and wrists a rapid cure may be effected with the use of x-rays; a third of an erythema dose is given, repeated at two weeks interval if necessary. Usually two treatments are sufficient. The prurigo group of skin diseases usually show an exacerbation in winter. These cases are treated with infra-red radiation, treating as many areas as possible daily and dressing immediately with zinc and castor oil ointment. As the acute phase lessens, a single fractional dose of x-rays may be given the flexures two weeks after stopping the infra-red treatments.

Röntgen Therapy of Thrombo-Angiitis Obliterans

G. E. Pfahler (*American Journal of Roentgenology*; 34:770-775, Dec., 1935) notes that several American and a larger number of French physicians have used the Roentgen rays in the treatment of thrombo-angiitis obliterans. The technique used has varied considerably; as a rule low voltage rays have been employed. Pfahler, however, prefers a voltage of 200 kv. and employs 0.5 mm. Cu. filtration and irradiates the paravertebral region from the eleventh dorsal to the fifth lumbar vertebrae (the sympathetic ganglia). Since the sympathetic ganglia are 10 to 12 cm. from the skin surface, Pfahler considers it "more logical to use the higher voltage and higher filtration technique." The surface dose is 20 to 30 per cent of an erythema dose (150 to 200 r) at each treatment. The area to be treated may be divided into four parts, and treatment through each area given on separate days or through two portals on each of two days. Treatments are given usually three times a week until one-half to a full erythema dose has been given over each portal, or over the whole area. This series may be repeated after an interval of one or two months if necessary. Pfahler has found that pain is usually relieved in two to three weeks after Roentgen-ray treatment is begun, so that patients can walk without distress. Circulatory and trophic disturbances improve in from four to six weeks; cyanosis disappears and normal color reappears; the affected extremities become warmer. Phlebitis shows improvement early. Ulcerations begin to improve in a few weeks and disappear within a few months. If gangrene has developed, the gangrenous area tends to become dry early in the course of treatment; the dead tissue gradually separates and the area heals. Chiefly because of the relief of pain the patient's general condition improves; patients "gain in weight, look rested and become happier and hopeful."

Specificity of Short Wave Currents

L. Delherm and H. Fischgold (*Journal de radiologie et électrologie*; 19:709-712, Dec., 1935) report a study of the short wave high frequency currents in comparison with other high frequency currents. All high frequency currents are characterized by low milliamperage and high voltage. While the claim has been made that the short wave currents are entirely different in their effects from the d'Arsonval currents and ordinary diathermy, the authors' investigations did not support this claim. They found that all high frequency currents—whatever their wave length—have a specific physiological action apart from their production of heat. This specific action of high frequency currents is to increase the chronaxia of the nerves, i.e., diminish the excitability of nerve and muscle. This may explain their sedative action in certain algias. The currents of short and ultra-short wave lengths, the authors conclude, differ from other high frequency currents not in their specific action, but in their capacity to act at a distance without contact.

Physical Therapy in Angina Pectoris and Coronary Occlusion

H. D. Holman (*Archives of Physical Therapy*; 16:667-670, Nov., 1935) reports the use of "conversive heat generated by diathermy" applied over the precordial area in the treatment of angina pectoris and coronary occlusion. This method has been used since 1922, and "thousands of treatments" given with no bad results. In cases where the heart is decompensated or has been decompensated with low blood pressure, treatments are given cautiously until tolerance is established. This method of treatment gives relief from pain in attacks when even morphine fails. The coronary circulation may be improved and the occurrence of attacks prevented by a series of treatments given daily or two or three times a week. Diathermy can be combined with any medicinal treatment indicated.

PUBLIC HEALTH, INDUSTRIAL MEDICINE AND SOCIAL HYGIENE

Immunological Application of Placental Extracts

E. S. Robinson and C. F. McKhann (*American Journal of Public Health*; 25:1553-1558, Dec., 1935) note that the Massachusetts State Department of Health has used placental extracts chiefly for the prevention or modification of measles. A total of 1,628 children exposed to measles have been given intramuscular injections of placental extract with the result that 69.9 per cent have been entirely protected against the disease, and in 25.6 per cent, the course of the disease was definitely modified. In children in whom the extract was given to protect within four days after exposure, 63.8 per cent were protected against infection and an additional 31 per cent showed a definite modification in the course of the disease. In the group in which the placental extract was given from five to twelve days after exposure, with the purpose of modifying the course of the disease rather than giving absolute protection, such a modification was obtained in 48.1 per cent, while a further 45 per cent were entirely protected. More than 60 per cent of the children given intramuscular injections of placental extracts showed no reaction; less than one-third showed a local reaction; and only about one-eighth a febrile reaction; only in about 5 per cent were reactions "moderately severe." In a small group of children (109), placental extract was given by mouth; in 33 of these it was given to prevent the disease, and this was accomplished in 14, while 8 others showed a modification of the disease. In 76 cases the extract was given to modify rather than prevent, with the result that 40 showed a modified form

of disease, and 16 others were entirely protected. It is evident that administration by mouth is not as effective as by injection, but a certain amount of measles antibody is absorbed from the gastro-intestinal tract. The authors are of the opinion that the use of placental extract offers "the best hope" in the control of measles.

COMMENT

In view of the great prevalence of measles and the seriousness of complications which often follow this infection, it is of great importance to discover a means of prevention or at least of favorable modification of this disease. The work of Robinson and McKhann is therefore a valuable contribution.

W. C.

Pertussis Immunization

P. Kendrick and G. Eldering of the Michigan Department of Health (*American Journal of Public Health*; 26:8-12, Jan., 1936) report a study of the value of *B. pertussis* vaccine in the prophylaxis of whooping cough. The vaccine used contained 10,000 million organisms per c.c. In most instances four doses (each at different sites) were given in amounts of 1.0 to 3.0 c.c., totalling 7 c.c. The largest dose (3.0 c.c.) was given in two injections at the same time, one in each arm. All of the children were under school age, most of them one to two years of age. There were 712 children given the vaccine and a similar group of 880 used as controls. In the 712 vaccinated children four cases of whooping cough occurred and in the 880 controls 63 cases of whooping cough occurred. The disease in the four cases occurring in the vaccinated group was of a mild type, while only 10, or about 15 per cent, of the control cases showed a similar mild type of the disease. These data indicate that an active immunity has followed the injection of *B. pertussis* vaccine, but the authors state that before definite conclusions can be drawn, the number of cases studied must be increased, and follow-up data included over a longer period.

COMMENT

The remarks concerning the preceding review of work on measles apply equally to the work of Kendrick and Eldering.

W. C.

Chemistry of Silicosis

C. M. Jephcott of the Ontario (Canada) Department of Health (*Canadian Public Health Journal*; 26:606-610, Dec., 1935) notes that in industrial dust hazards, it is not the total mass of dust in the air that is of importance but the number of particles less than 10 microns in size. As only particles larger than 60 microns can be seen with the "unaided eye," it is evident that a harmful exposure may occur where there is no visible dust. The author has found that all human lungs contain some silica; the average figure for the lungs of adults not exposed industrially to silicious dust is 100 mg. per cent calculated on the dried weight of the lung. In lungs from nine gold miners from the Porcupine area, the amount of silica varied from 470 to 2800 mg. per cent calculated on the dried weight of the lung, or from 5 to 30 times the average in the lungs of unexposed individuals. The silicious portion of the lung ashes contained about equal amounts of silicon dioxide and sericite; but the sericite occurs in the rocks of the Porcupine area, so that its presence in the lungs is not evidence that it is the chemically active dust as claimed by W. R. Jones.

In the study of lungs from 11 men exposed to various types of silicious dust, it was found that the silicon compounds present in the lungs correspond to the dusts inhaled during life. Sand blasters who are exposed to dust composed mainly of silicon dioxide show this material in the lung ash, but they develop severe types of silicosis. There is, the author has found, "a striking correlation" between the amount of silica in the dried lung substance and the severity of silicosis "as determined histologically." The author's studies of silicosis lead him to conclude that "the silica dust hazard is probably the most widespread and in-

sidious of all industrial hazards within the knowledge of mankind."

COMMENT

In view of the recent publicity regarding silicosis in West Virginia the above article is particularly pertinent.

W. C.

Recommendations for a Venereal Disease Control Program in State and Local Health Departments

R. A. Vonderlehr (*American Journal of Syphilis*; 20:1-21, Jan., 1936), as chairman of an Advisory Committee in the U. S. Public Health Service, presents the recommendations of this committee for venereal disease control work in State and local health departments. The committee recommends that venereal disease work should be integrated or performed in close liaison with the communicable disease division of the health department, but should be a separate division directed by a full-time venereal disease control officer. There should be a local advisory committee for each state, large municipality or health district to coordinate the venereal disease work of the health department, "the medical and allied professions" and voluntary agencies. The work of such a venereal disease section of the health department should include: The provision of adequate treatment facilities for indigent patients or those unable to pay the full cost of adequate treatment. In small communities, the local health department should be aided by the State Health Department in various ways in providing adequate treatment facilities. The free distribution of anti-syphilitic drugs to treatment centers is a good method of giving a partial subsidy. The committee recommends that each state have at least one approved venereal disease diagnostic and treatment center where special methods of diagnostic study (other than the usual laboratory procedures) and special treatment can be carried out. Minimum requirements for treatment clinics are outlined. The epidemiological work of a venereal disease control section of a health department includes the epidemiological investigation of the early infectious case, tracing sources of infection and contacts, and the follow-up of patients that have lapsed from treatment, especially those that are infectious. Adequate, easily available laboratory service for dark field examinations and serological tests should be provided by state or local health departments, as "a first essential in the control of syphilis." Health departments should cooperate with physicians not only by providing free diagnostic laboratory service, but also by free distribution of antisyphilitic drugs for the treatment of patients "who are or may become a danger to the public health"; and by the provision of consultation services including special methods of diagnosis for patients unable to pay the full cost of such services. The venereal disease control officer must collect "adequate morbidity and mortality reports." The functions of the venereal disease section of the health department also include "an informative and educational program" among physicians, including post-graduate instruction in venereal disease control work; and the education of the public by radio talks, lectures, pamphlets and newspaper articles, and moving pictures. Special surveys of the results of the work should be made from time to time.

COMMENT

It seems reasonable to suppose that by the application of well established basic principles the prevalence of syphilis in the United States can be reduced to small proportions, as it has been in Sweden and Denmark.

W. C.

The Decreasing Prevalence of Syphilis in Massachusetts

N. A. Nelson, of Boston (*Journal of the American Medical Association*; 106:105-109, Jan. 11, 1936), presents statistics showing a very definite decrease in syphilis in Massachusetts. The statistics from various lying-in hospitals in the state show a reduction of 70 per cent in the incidence

of syphilis in pregnant women in fifteen years. The statistics of venereal disease clinics show a 30 per cent reduction in admissions for early syphilis in ten years, while admissions for late syphilis have increased, indicating that there is an increase in the number of old infections with syphilis being brought to medical attention. In the same period these clinics report a definite increase in the number of cases of gonorrhea. The incidence of neurosyphilis as reported for the State has been reduced 32 per cent in five years; this is supported by the decline in admissions for dementia paralytica to mental disease hospitals, and in the death rate for neurosyphilis.

COMMENT

Nelson's report gives encouragement to other states in which measures similar to those employed in Massachusetts are being employed.

W. C.

Heat Cramps and Heat Prostration In Hot Industries

P. M. Starkov and J. V. Jikesh (*Journal of Industrial Hygiene*; 17:247-252, Nov., 1935) report a study of workers who developed cramps or heat prostration from exposure to high temperatures in metallurgical works in the Ural, U.S.S.R. It was found that in heat cramps there was a high viscosity of the blood and high hemoglobin content, decreasing to normal under treatment, and low total urine output with diminution of the chloride, increasing under treatment, indicating a disturbance of the water-salt metabolism as the etiological factor. In heat prostration, blood viscosity, hemoglobin and urinary chloride were normal, and the urinary output high, indicating that the thermoregulatory system was inadequate (sometimes associated with cardiac weakness), especially as this condition occurred in men new to the work.

OPHTHALMOLOGY

Relation of Strabismus to Right or Left Sidedness

W. H. Fink and B. Bryngelson (*Archives of Ophthalmology*; 15:947-956, Dec., 1935) report a study of 60 cases of convergent strabismus with special relation to right or left handedness and speech disturbances. Of the 60 cases, the right eye was involved in 37, and the left eye in 23 cases. Fifty-five of the patients gave definite information as to "handedness"; of these 23 were ambidextrous and 32 were right-handed. Fifty-two of the patients gave definite information as to change in handedness; of these 31 or 59.62 per cent reported a shift in handedness. Thirty-seven patients reported left-handedness in the family. Nine patients gave a definite history of stuttering and 23 a history of speech defects (including stuttering). Thirty patients reported strabismus in the family history. This analysis shows that in a high percentage of cases the handedness was shifted from one side to the other; this shift was made early in life before the onset of strabismus. The high percentage in which speech defects were associated with these shifts, and the fact that these cases occurred in a left-handed family stock, also appear to the authors to be significant. The speech specialists, the authors note, believe that the cerebral cortex is the seat of control over the lower centers, and that for perfectly executed speech one cerebral hemisphere must dominate the other. Changing from the use of "a dominant hand" to one less dominant may precipitate incoordination of the higher cerebral processes by activating the less dominant hemisphere and "forcing it to function antagonistically to the other." If there is not a "strong neuro-physiologic bias" for the development of cerebral dominance, there may be resulting incoordination in the peripheral musculature. This theory, advanced to explain speech defects, the authors believe, may also be applied to explain the development of strabismus; and the analysis of cases presented

by them indicates a possible relationship between strabismus and the "inherent sidedness" of the patient.

COMMENT

This very interesting paper in which an ophthalmologist and a psychologist collaborated was suggested by the behavior of a young child who developed a speech defect while receiving fusion re-education for a convergent strabismus. It is honest and convincing and very well documented.

It is unfortunate that psychologists know so little about ophthalmology, and ophthalmologists so little of psychology, that they rarely talk a common language. The coordination of the brain and eye and hand is admittedly among the greatest facts in human evolution but how it is brought about is still a bit mysterious. There are families which are incurably left-handed generation after generation in whom a definite cerebral dominance is evidently transmissible and inescapable. The same thing would probably be found true among the right-handed except that no effort is ever made to change a right hander to a left. There are apparently many others in whom dexterity or sinistrality is not inborn but simply an acquired habit which can readily be learned and unlearned. These are the people who are spoken of as ambidextrous, which generally means that they lack the highest facility with either hand. Try to imagine an ambidextrous Kreisler. The preference of one hand over the other arrests the attention of even the superficial observer, but most people have a dominant eye, though some of the tests used to determine this are not above question. It seems quite as probable that the dominant eye determines the dominant hand as the reverse.

The occasional unfortunate results of trying to re-educate a determined left hander were pointed out by ophthalmologists long ago and corresponded with many of those collected in this paper. If there is any validity in the theory of ocular dominance we shall begin to have reports of the cerebral uncertainty that may follow the forcing of the subordinate eye and hand in the wholesale fusion training that is now going on.

Our authors suggest that manual re-education through the changes it makes in cerebral dominance might cause the same hesitation and uncertainty in ocular coordination that it does in speech and so be a factor in strabismus. They promise to present further evidence.

E. M. A.

Blood Lipids in Lipemia Retinalis

A. Marble and R. M. Smith (*Archives of Ophthalmology*; 15:86-94, Jan., 1936) report that at the Joslin Clinic of the New England Deaconess Hospital, Boston, 9 cases of lipemia retinalis have been recognized in 11,000 cases of true diabetes. The average age of these 9 patients was 31.1 years, and the average duration of the diabetes when lipemia retinalis was noted was four years. Four of these 9 patients have died, 3 of them in diabetic coma; of the 5 living patients 4 have lived over a year since the lipemia retinalis was discovered. In only one of these patients was acidosis absent, as shown by the ferric chloride test of the urine, when the lipemia retinalis was noted. It is possible that this patient had shown acidosis in the preceding days or weeks. The highest value for total blood lipids found (in a case previously reported) was 19.86 per cent. In one case it was found that lipemia retinalis could no longer be detected when the total blood lipids fell to 2.95 per cent. In two of the 9 cases (reported in detail in this article), a study was made of the total lipids, fatty acids, total and ester cholesterol and phospho-lipins of the blood; both of these patients were boys (sixteen and twelve years of age, respectively) whose diabetes had been poorly controlled. The total lipid content of the blood was 14.1 per cent in the first case and 7.5 per cent in the second at the first examination. The largest increase was in the fatty acids; the cholesterol was next in order. Under treatment for the diabetes, the blood fat values fell rapidly at first, then more gradually. The level of blood fat at which the lipemia retinalis disappeared was not noted exactly in these cases, but the findings of others indicate that there is considerable variation from case to case. It is well known that the blood fat may be several times the

normal value without the development of lipemia retinalis. Gross hyperlipemia and lipemia retinalis are indications that the diabetes is poorly controlled, but they do not necessarily indicate a poor prognosis if the disease can be promptly and adequately treated.

The Pneumococcus Group from the Inflamed Conjunctiva and Lacrimal Sac

S. H. McKee (*American Journal of Ophthalmology*; 18:1021-1029, Nov., 1935) has found that the pneumococcus is frequently the causative organism in acute conjunctivitis, purulent dacryocystitis and ophthalmia neonatorum. In cultures from the conjunctiva and lacrimal sac from a series of cases at the Ophthalmic Clinic of the Montreal General Hospital, the author obtained 70 strains of pneumococci, 17 strains of nonhemolytic streptococcus, 36 strains of staphylococcus (aureus and albus) and 7 strains of other organisms. Of the 70 strains of pneumococcus 61 were of type IV, 5 of type I, 1 of type II and 3 of type III. It was noted that pneumococci of type IV sometimes caused a mild inflammation of the conjunctiva, and sometimes a more destructive process. In 12 cases of pneumonia with moderate conjunctival inflammation, the same type of organism as had been cultured from the sputum was cultured from the conjunctiva in 4 cases. In 12 cases of pneumonia without conjunctival inflammation no pneumococci were obtained from the eye. The author suggests that the possibility of local and general serum treatment in pneumococcus infection of the eye "offers an excellent field for investigation."

Nupercaine Ointment in the Eye

W. C. Minnich (*American Journal of Surgery*; 30:508-509, Dec., 1935) reports the use of a nupercaine ointment to relieve pain after injury to the eye. The commercial ointment containing 1 per cent nupercaine base in lanolin and petrolatum was employed. The procedure adopted in the immediate treatment of injuries to the eye was to cleanse the eye with some mild antiseptic douche, when necessary, remove any foreign body or make such repair as was indicated, and then apply a small amount of the ointment to the eye. There was usually entire relief of pain within three to five minutes following the application of the ointment and this persisted "more or less completely" for twenty-four hours in most cases. In no case was the ointment given the patient for use at home but he was instructed to report the next day for further treatment. In some cases no further application of the ointment was necessary, but in others two or more applications were made. This procedure has been used in 105 cases and in none has there been "the least indication" of any injurious effect. In one case, seen some time after severe burns of the cornea that resulted in corneal ulceration, sixteen daily applications of the ointment not only relieved the pain but were followed by progressive improvement in the condition of the eye.

Syphilis and Primary Glaucoma

W. Beckh (*American Journal of Ophthalmology*; 18:1129-1133, Dec., 1935) notes that the etiological relationship of primary glaucoma to syphilis has been discussed but that few studies on the subject have been published. Accordingly a study was made of the incidence of syphilis in 365 consecutive cases of primary glaucoma admitted to the public wards of the Wilmer Ophthalmological Institute of Johns Hopkins Hospital. Of the 365 patients, 288 were white and 77 colored. The incidence of syphilis in the white patients with glaucoma was somewhat lower than in those with cataract—another common eye disorder occurring at about the same age period as glaucoma and known not to be related to syphilis in any way; the incidence of syphilis in these patients with glaucoma was also considerably lower than in a series of general medical admissions. In the colored patients, the incidence of syphilis in those with primary glaucoma was somewhat higher than in those with cataract but definitely lower than in general medical admissions. Of the 22 patients with primary glaucoma who had syphilis, the syphilitic disease was latent in 18 (82 per cent). A comparison of the results of treatment in 17 syphilitic patients with glaucoma treated by specific

therapy and miotics showed there was a "somewhat poorer therapeutic response" than in a non-syphilitic group treated by miotics alone. This study, the author concludes, "has failed to present any evidence for the view that primary glaucoma is in anyway related to syphilis."

Tuberculosis and Trachoma

J. Francois (*Archives d'ophtalmologie*; 52:875-882, Dec., 1935) notes that a number of investigators have suggested a relationship between trachoma and tuberculosis, and have found a high incidence of trachoma in tuberculous patients. Tuberculin tests have been positive in a high percentage of patients with trachoma. The author's own studies of the blood picture in trachomatous patients showed anemia, neutropenia, lymphocytosis and eosinophilia. He reports experiments in which guinea-pigs were inoculated intraperitoneally and subcutaneously with emulsified material from the trachomatous conjunctiva. In no instance was there the slightest evidence of tuberculosis. The author concludes that if there is any relation between tuberculosis and trachoma, it is that the tuberculosis diminishes the patient's resistance to the trachomatous infection.

Authorization of Physical Examinations, Treatment, Operations and Autopsies

WILLIAM C. WOODWARD, Chicago (*Journal A. M. A.*, Jan. 4, 1936), states that the principles governing the authorization of physical examinations, operations and treatment are identical. The principles stated are of general application throughout the United States, but in some states they may be modified by statute or by court decision, and in case of doubt and dispute the physician will do well to take the advice of competent counsel before he proceeds. Lawful authority for the physical examination of a patient, an operation or local treatment arises only (1) out of a legal duty or (2) out of the consent of the patient or some one authorized to act on his behalf. Lawful authority arising out of legal duty concerns only officers of the government while acting within the scope of the authority vested in them by law, such as a physician authorized under the eugenic sterilization law of his state to sterilize an inmate of a state institution. In the everyday practice of medicine, lawful authority for the physical examination of a patient, an operation or treatment is nothing more than valid consent. Consent, however, even by the patient himself, is not necessarily valid. Consent may be invalid (1) because it undertakes to authorize an unlawful act or an act contrary to public policy, or (2) because it comes from a person who has no lawful right to give consent, or (3) because it was obtained by misrepresentation or fraud. Authority to consent to autopsies is based on principles somewhat different from those underlying authority to consent to physical examinations, operations and treatment. Whether a person can by his will or by any agreement made before death authorize an autopsy on his dead body is a question with respect to which the laws and court decisions of the several states differ. Ordinarily, the right to determine whether an autopsy may or may not be done is vested in the surviving spouse, or in the next of kin, in order of kinship. Universally, when death has been due to violence or there is reasonable ground for believing that it has been caused in that way, the right to the custody and control of a dead body vests immediately in the coroner or the medical examiner. The person who has the right to give authority for an autopsy has authority also to state the limits within which that autopsy shall be performed, and the autopsy must be performed strictly within those limits. One who transgresses those limits is guilty of a trespass and may find himself liable for damages. Consent to an operation or an autopsy may (1) be implied by the circumstances of the case or (2) be given by word of mouth or (3) be given in writing. All forms of consent are equally binding, but consent should be in writing, if possible, in order to avoid misunderstanding and to facilitate proof of consent. Implied consent to operations and to autopsies always carries with it the possibility of misunderstanding as to the purpose and scope of the undertaking and of difficulty of proof in case of controversy. Oral consent is open to misunderstanding and may be difficult of proof. A suggested form for consent for operation and autopsy is given.

Editorials

Weird Leadership

It is our conviction that leadership of our great medical organizations calls for a modicum at least of wisdom and that there is not much sense or propriety in the expression of befuddled "personal views" on the part of a leader with a gratuitous proviso that they must "not in any way be considered the official views of the medical society."

We are all for the free expression of personal views as regards general membership and there is plenty of opportunity over the years to give such expression. But when the presidency of a great medical society is bestowed upon a chosen individual by its thousands of members, how can the voice of the recipient, speaking an inaugural which is published broadcast, be not considered *in any way*, by the attentive public, as official? Such an idea is preposterous.

We have medical humorists and satirists, quite capable of putting on a good burlesque "show," but "it isn't done," and such men, while they may be highly regarded, are not at all likely to have presidencies bestowed upon them. When, therefore, we read or listen to an inaugural which bristles with the unwise opinions of one who is not a wag, we realize that it is a kindly but very simple Dr. Pickwick in Blunderland who speaks to the community.

Thus such a leader, to the surprise even of those who thought they knew their man better, may blurt out a proposal to form medical political clubs (we should all like to see the physician take more interest in public affairs and put his principles into action for human betterment, but we can imagine no avenue worse than a political club); or he may express a belief in the right to refrain from prolonging the life of a doomed patient (which short-cut would often mean unnecessary agony that no informed person would wish to go through or to inflict; the sudden and complete withdrawal of narcotic drugs that have been keeping a patient alive and in comfort is an example); or he may plead for the right to give birth control information (what law of the State of New York now prevents him?); or he may advocate "voluntary" health insurance while professing to abhor the compulsory type (although it is well known that the former has always led directly to the latter); or he may advise liberalization of sentiment against performing abortions (forgetting insuperable medical objections and that every argument in favor of the legalization of abortion is an equally good argument for legalized infanticide, which latter, the speaker might well urge in his odd fashion, would also obviate the high maternal morbidity which accompanies the forced interruption of pregnancy and hence would be a superior technique).

What should be thought of a leader who in one inaugural expresses *all* of the possible opinions cited, and who naively expects the community to

dissociate his views from those of the medical society in whose name he speaks—and what should be thought of the judgment of the men who select him to lead?

What of the future of medicine when leaders and led can be so weird?

Meeting the Expanding Problem of Chronic Illness

Realization of "the increase in death rates from chronic disease and the growing need for care of the chronically ill, coupled with the increasing age of the population and the increase in death rates among the older age groups" has greatly stimulated interest in the problem of sickness related to these facts.

Expectancy of life at birth has now become sixty years—a gain of twenty years in the past half century. This is thought by public health authorities to be "the most impressive advance made by the human race in any direction for a thousand years." The increase has been accomplished through public health measures: better sanitation, improved water supplies and sewage systems, the advance of bacteriology, education for personal hygiene, and successful attack upon communicable diseases. Dr. Hugh S. Cumming, the retiring Surgeon-General of the United States Public Health Service, cites these as major factors, and reminds us that tuberculosis, typhoid fever and diphtheria as well as other diseases have been decreasing, some of them to the vanishing point. The increase in the average age of the population has been largely due to modern infant and maternal welfare work, which has saved the lives of thousands of infants.

As to this increasing age, Cumming cites the declining birth rate and restricted immigration, the latter factor decreasing the number of young adults of the productive and child-bearing ages. We are witnessing a higher and higher percentage of the older age groups in the total population. Thus in 1880, only 11.8 per cent of the population was over fifty, while in 1930 this group had reached 17.2 per cent. "By 1980 over one-fourth of our people will be in the older age groups."

The "impressive advance," however, has its disconcerting side, for this older group is presenting special disease problems. We must recognize chronic diseases under these circumstances as a vital public health problem. "In 1900, only three-tenths of all deaths in persons over fifty years of age were due to heart diseases, kidney diseases and cancer (including tumor). Today, over one-half of the deaths over fifty are registered for these causes."

Then we must remember that individuals with chronic degenerative diseases usually suffer for longer periods than do those with acute diseases. All of which means a great tax upon general hospitals (greatly lengthening the average stay) and dis-

astrous economic effects upon the individuals and families afflicted with chronic illness.

The problem is so vast that private philanthropy cannot begin to meet it.

In the City of New York, Commissioner of Hospitals S. S. Goldwater has for long been planning to cope with the problem in so far as it concerns the metropolitan district, and his work should afford a model for Federal, State and local public welfare agencies everywhere, as well as for health agencies both public and private. He has made this matter the major program of his Department and has already taken steps to establish a research laboratory containing one hundred beds that will be opened in the Spring in a wing of the Metropolitan Hospital on Welfare Island under the direction of Dr. Martin Henry Dawson. The cooperation of the Columbia, Cornell, New York University and New York Homeopathic Medical Schools and of the Long Island College of Medicine is assured, and the Kings County Hospital also figures in the plan. The new 1600-bed hospital for chronic diseases, plans for which are now well under way, is a principal feature of Commissioner Goldwater's replacement program for Welfare Island.

Space, Air and Light

Lucia Ames Mead, American writer, tells us that "If what Europeans consider the necessities of life had been understood by our city councils there would be an enormous saving in slum clearance now, in chasing juvenile gangsters, building prisons, providing hospitals and clinics which demand 'emergency campaigns.'"

Those necessities are space, air and light, of which city folk get so little, for they have their being in the shadows of skyscrapers, in the subways, and in the apartments where they dwell.

So the results of our lunacy are visited upon exploiters and exploited alike.

We do not seem to desire greatly to stop this merry-go-round.

A Paradoxical Parallel

We have a good many therapeutic nihilists nowadays. Among them "there is a growing tendency to ignore the established principles of drug therapy and to minimize the value of standard remedies in modern practice. . . . A wave of drug nihilism is sweeping over the profession and engulfing many members. . . . For the nihilist to devote a minute or two to writing a suitable prescription seems to be impracticable, since he believes it matters little what medication is given anyway. . . . Usually the nihilist tries to avoid writing a prescription."

But right alongside of the nihilist we observe the opposite extreme—an individual with the most naive and extravagant faith in drugs. He parallels the nihilist in extremeness. He is the man who pushes certain drugs to toxicity in certain circumstances, and frequently denies the toxicity. It is not necessary to particularize.

There is a curse on the houses of both. Good therapeutics cries out against both betrayers.



ASSOCIATED PHYSICIANS OF LONG ISLAND

Thirty-eighth Annual Meeting
Held in Brooklyn, at Methodist
Episcopal Hospital

The annual meeting of the Associated Physicians of Long Island was held in Brooklyn, Saturday, January 25, 1936, with a clinical day and business session in the Methodist Episcopal Hospital, and a dinner in the Granada Hotel. The attendance was very satisfactory despite the inclement weather, which made it nearly impossible to drive a car in from the island.

The medical and surgical staffs of the hospital united to provide a good clinical day which served to show to advantage the fine work which the hospital accomplishes and the high caliber of the staff. From 11 A. M. to 1 P. M. operative clinics were held in the amphitheater by Dr. Henry F. Graham and Dr. Harold K. Bell and their staffs. Two surgical operations were kept going simultaneously so that the visitors were able to witness a lot of work in that short time.

At 1 P. M. the association was the guest of the hospital at luncheon, served in the nurses' dining room of the hospital. The excellence of this meal and the generosity of the hospital board in providing it are appreciated with gratitude.

At 2:30 P. M. the members were conducted through the new x-ray and physiotherapy department and were shown the fine therapy machine which can deliver deep x-ray treatment silently and so shielded that one can enter the room during a treatment. A tremendous current is built up to reduce the time of treatments to a fraction of the customary dosages, yet this is completely shielded by oil and is artificially cooled.

The scientific session was arranged by Dr. Jefferson Browder and presented by members of the staff of the Methodist Episcopal Hospital in the amphitheater of the nurses' training school. The program was as follows:

1. Practical Dietary Principles by Dr. Frank B. Cross.
2. Case of Krukenberg Tumor in Pregnancy by Dr. Henry T. Hagstrom.
3. Present Methods of Treating Poliomyelitis by Dr. Kenneth Nichol.
4. Treatment of Atrophic Arthritis by Dr. Donald McKenna.

The business meeting was held immediately following the scientific session with Dr. Herbert C. Fett presiding. Dr. Edwin Griffin as chairman of the membership committee presented 23 candidates for membership and their unanimous election followed. The association congratulates Dr. Griffin and his worthy committee and welcomes the following new members:

Dr. Laurent Feinier, Dr. Henry T. Hagstrom, Dr. Charles E. Hamilton, Dr. Frank C. Hamm, Dr. William I. Kurz, Dr. Walter A. McLaren, Dr. George A. Merrill, Dr. Richard A. Rendich, Dr. Herman Sturcke, Dr. Charles G. Williamson, Dr. Leo J. Kelly, of Brooklyn, N. Y., Dr. Theodore J. Curphey, Westbury, L. I., Dr. Louis H. Bauer, Dr. Leo T. Flood, Dr. Carl F. Freese, Dr. Luther H. Kice, Dr. Willard J. Lee, Hempstead, L. I., Dr. Harold S. McCartney, Mineola, Dr. Francis J. Marx, Westbury, Dr. Stuart J. Porter, Floral Park, Dr. James Scott, Hempstead, Dr. Myron R. Jackson, Oyster Bay.

The election of officers for 1936 ensued with the following officers being unanimously elected:

President: Dr. Wilbur C. Travis of Northport.
First Vice Pres.: Dr. Charles A. Anderson of Brooklyn.
Second Vice Pres.: Dr. Otho C. Hudson of Hempstead.
Third Vice Pres.: Dr. S. Potter Bartley of Brooklyn.
Fourth Vice Pres.: Dr. John B. Healy of Babylon.
Treasurer: Dr. John J. Masterson of Brooklyn.
Secretary: Dr. David Edward Overton of Hempstead.

The dinner was held in the roof garden of the Granada Hotel at 6:30 P. M. Through the customary efforts of Dr. Charles Anderson, this was a huge success. The after-dinner speaker was an engineer, Mr. F. M. Vaventer, an outstanding authority on carbon monoxide gas. He proved

by pictures and diagrams the dangers lurking in automobiles with small leaks in the exhaust pipe which communicate with the interior of the car or bus and affect the driver. This part of the program was so timed as to allow the members to listen to Mr. Alfred E. Smith's address to the Liberty League in Washington, received over a radio provided by Dr. Anderson and Dr. Welton. A lively smoker and political discussion terminated the meeting.

Correspondence

Our Health: A Retrospect of Thirty-Five Years

To the Editor of THE MEDICAL TIMES:

Are we gaining or are we losing in the struggle to overcome the ailments of humanity that prematurely end life? The answer is both yes and no. Of our three great educators, the doctor, the schoolmaster and the dominie, the first named can show concrete results that humanity readily appreciates—namely, the conquest of many deadly infectious diseases. Death is inevitable only when old age is the cause—when the clock of life has run down. But deaths from old age are almost negligible in number. In a population of more than one and one-quarter million in 1934 they accounted for less than three-quarters of one per cent of the whole number. For the reason that the population of a given area is subject to changes from time to time, the total number of deaths in a year is not always a safe measure for the comparison of mortality statistics. A yardstick good for all conditions, therefore, is required and for this purpose the average number of deaths in one thousand—or one hundred thousand—is everywhere used for comparison.

In 1900, when the Bureau of the Census began the recording of vital statistics, the death rate in the registration area of the United States was 17.6 per thousand of population; in 1934, it was 11.1, a saving of one life in every three. In 1934, the deaths in the registration area, about 96 per cent of the total population, numbered 1,396,905. Had the rate of 1900 prevailed the number would have been greater by three-quarters of a million, a number exceeding the populations of Buffalo and Albany combined.

When it was discovered that diseases were due to the transference in each case of a specific germ from an infected to a non-infected person, medical science found a base of attack against the germ. In half a century the diseases most fatal to children have been reduced nearly to a minimum. Scarlet fever and diphtheria have been almost eradicated. The diseases most fatal to adults, typhus, typhoid fever and smallpox are now rare and the number of deaths almost negligible.

Tuberculosis, the greatest scourge of humanity, is still with us. Probably it will be with us for generations to come; for, although it has yielded to treatment to a remarkable extent, prevention against infection is not yet in sight. The first vessel that brought Europeans to the American continent brought tuberculosis with them; and in the early history of the first New England colony about one death in three or four was the toll of "consumption," as it was then named. Our forefathers regarded it as a divine visitation. Not until the discovery of the specific bacillus of infection, half a century or more ago, was it generally supposed to be "contagious." Infection has been spread chiefly from contact with persons. Many are carriers of the tubercle bacillus who resist infection. The carrier may not be known to be a carrier, and therefore may be an agent in spreading the disease. The milk of infected cows has been another agent of infection and their herds are disappearing.

The mortality due to tuberculosis has probably exceeded that of any other human scourge, even that of the great pandemic plagues. Until within a few years it was the foremost among death-dealing diseases; in 1934 it was fifth in the list. The segregation of patients, compulsory in many communities; rigid inspection and the pasteurization of milk; the gradual elimination of infected milk herds; better all-around sanitary conditions—all these,

to a certain extent, have been preventives. In 1900 the death rate from tuberculosis was 195.0 for each one hundred thousand of population; in 1934 it was 56.6—a result of education and not physic. Credit the doctor as an educator. But the toll, even lessened two-thirds in thirty-five years, is frightful—71,000 lives.

Four human ailments, heart diseases, apoplexy, kidney ailments and cancer account for half the number of deaths in the United States. The ratio does not differ widely from that of the densely peopled parts of Europe. The first three are regarded as degenerative ailments. They are gaining rapidly, with a single exception, in the number of victims each year, as the following statistics show, the rates per 100,000 being respectively for 1900, 1925 and 1934:

	1900	1925	1934
Heart and arteries	147.2	211.0	263.6
Cancer	66.6	92.6	111.3
Apoplexy	69.2	83.7	85.5
Bright's disease	94.6	96.4	87.3

These are ailments of the strenuous life that besets humanity. The doctor may prescribe, but medicines are of little value. He may advise, but the whirlwind of fast living prevails against his advice. Owing to the excellent work of health boards the mortality of infectious diseases is proportionally less in urban than in rural communities, but the four ailments noted are those mainly of urban population. Unchecked, in time they are likely to surpass the gain over the conquest of infectious diseases.

There is another cause of death for which the doctor is not even remotely responsible which education—church and school—has failed to prevent, namely, violence—accidents, motor car slaughter, suicide and homicide. In 1925 the sum total was 102,162; in 1934, 132,022. In that ten-year period motor car killings almost doubled and the victims of the amiable gangster increased one-half. The United States leads all nations in crimes of violence. It is up to the dominie and the schoolmaster to get busy.

Meteorological Laboratory, Mount Vernon, N. Y.

JACQUES W. REDWAY

My Lady Nicotine

To the Editor of THE MEDICAL TIMES:

In the February, 1936 issue of "MEDICAL TIMES" appeared an article by Dr. P. Charles Green, entitled, "The Nicotine Fallacy." In this article Dr. Green makes reference to some of the work which Philip Morris & Company has done and the results obtained. Dr. Green said that a substitute for glycerine, diethylene glycol, is used as hygroscopic agent in cigarettes, and that diethylene glycol is the technical name for Prestone. This is an error. Prestone is ethylene glycol, not diethylene glycol.

Dr. Green also said, in reference to this same subject, "When used in a cigarette develops an excess of a gas that is quite opposite of what any manufacturer would want." This I feel is an unfair insinuation, unless Dr. Green knows definitely what gas is formed. I have been making studies for some years on this subject, and I have found no gas in cigarette smoke, from cigarettes treated with diethylene glycol, which answers such a description.

I will greatly appreciate it if you will be good enough to publish this letter, to correct any false impression that may be gained on reading Dr. Green's article.

Cordially yours,

PHILIP MORRIS & CO., LTD., INC.

Willard F. Greenwald, Research Director

New York, February 6, 1936.

Treatment of the Scoliotic Patient

After a successful improvement in a case of scoliosis with the convex stretcher frame ARMITAGE WHITMAN, New York (*Journal A. M. A.*, Jan. 11, 1936), began experimenting with the frame treatment exclusively, sometimes in the case of unruly patients, supplemented by traction on the head and pelvis. Before long he came to the conclusion that in the average case as much improvement in the curvature could be gained in from six to eight weeks of recumbency as he had been able to achieve in two years of jacket treatment.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

ELECTROPYREXIA IN GENERAL PARALYSIS. By Leland E. Hinsie, M.D., & Joseph R. Blalock, M.D. Utica, State Hospitals Press [c. 1934]. 90 pages, illustrated. 8vo. Cloth, \$1.25.

IT MUST BE YOUR TONSILS. By Kenneth Roberts. Garden City, Doubleday, Doran & Co., Inc. [c. 1936]. 70 pages, illustrated. 12mo. Cloth, \$1.00.

**THE 1935 YEAR BOOK OF DERMATOLOGY AND SYPHIL-
OLOGY.** Edited by Fred Wise, M.D., & Marion B. Sulzberger, M.D. Chicago, The Year Book Publishers, Inc. [c. 1936]. 736 pages, illustrated. 12 mo. Cloth, \$3.00.

THE HAIR AND SCALP. A Clinical Study with a Chapter on Hirsuties. By Agnes Savill, M.D. Baltimore, William Wood & Company [c. 1935]. 288 pages, illustrated. 8vo. Cloth, \$5.00.

THE NEXT HUNDRED YEARS. The Unfinished Business of Science. By C. C. Furnas. Baltimore, The Williams & Wilkins Company [c. 1936]. 434 pages. 8vo. Cloth, \$3.00.

POST MORTEM AND MORBID ANATOMY. By Theodore Shennah, M.D. Third edition. Baltimore, William Wood & Company [c. 1935]. 716 pages, illustrated. 8vo. Cloth, \$9.00.

FOR STUTTERERS. By Smiley Blanton, M.D., & Margaret G. Blanton. New York, D. Appleton-Century Company, Inc. [c. 1936]. 191 pages. 12mo. Cloth, \$2.00.

APPARATUS & TECHNIQUE FOR ROENTGENOGRAPHY OF THE CHEST. By Charles Weyl and S. Reid Warren, Jr.

Springfield, Charles C. Thomas [c. 1935]. 166 pages, illustrated. 8vo. Cloth, \$5.00.

BODY WATER, THE EXCHANGE OF FLUIDS IN MAN. By John S. Peters, M.D. Springfield, Charles C. Thomas [c. 1935]. 405 pages. 8vo. Cloth, \$4.00.

MECHANICS OF NORMAL AND PATHOLOGICAL LOCOMOTION IN MAN. By Arthur Steindler, M.D. Springfield, Charles C. Thomas [c. 1935]. 424 pages, illustrated. 4to. Cloth, \$8.00.

CLASSICAL CONTRIBUTIONS TO OBSTETRICS AND GYNECOLOGY. By Herbert Thoms, M.D. Springfield, Charles C. Thomas [c. 1935]. 265 pages, illustrated. 8vo. Cloth, \$4.00.

AGENTS OF DISEASE AND HOST RESISTANCE. Including the Principles of Immunology, Bacteriology, Mycology, Protozoology, Parasitology and Virus Diseases. By Frederick P. Gay and Associates. Springfield, Charles C. Thomas [c. 1935]. 1581 pages, illustrated. 4to. Cloth, \$10.00.

THE 1935 YEAR BOOK OF UROLOGY. Edited by John H. Cunningham, M.D. Chicago, The Year Book Publishers, Inc. [c. 1936]. 452 pages, illustrated. 12mo. Cloth, \$2.25.

OCULO-REFRACTIVE CYCLOPEDIA AND DICTIONARY. By Thomas G. Atkinson, M.D. Second edition. Chicago, The Professional Press, Inc. [c. 1934]. 384 pages, illustrated. 8vo. Cloth, \$5.00.

News and Notes

Sixth International Congress on Physical Medicine

The Sixth International Congress on Physical Medicine will be held at London, May 12-16, 1936. It will consist of sections on kinesitherapy, physical education, hydrotherapy and climatotherapy, electrotherapy, actinotherapy, radiotherapy, and radium therapy. American participants will sail from New York on May 2nd on the *MP Britannic* and return on May 31st on the *SS Transylvania*. Dr. Richard Kovacs, 1100 Park Ave., New York, is Executive of the American Committee.

The Challenge of Chronic Otitis Media

(Concluded from page 79)

sibility of treatment of acute otitis media—to warn patients, or the parents of patients, of the absolute necessity of meticulous care of the infection and to see that such care is given until the discharge has ceased, the ear drum is normal and complete hearing has returned. In all good textbooks on the subject, the principles of the treatment will be found, and, of them all, the two factors of prime importance are careful cleansing of the aural canal at frequent intervals and absolute rest in bed until there are definite signs of resolution of the infection.

However, in many cases, the temperature will return to normal but there will be no abatement in the character and quantity of the discharge two weeks after the onset, in which case it is probable that there exists not alone an acute purulent otitis media but an infection of the cells immediately adjacent to the mastoid antrum, an asymptomatic mastoiditis, or a petrositis as well. The proper care of these conditions demands the advice of an otologist and there should be no delay in securing it, for only in this way will the incidence of chronic otitis media be markedly reduced and many patients saved an illness which, while not always fraught with danger to life, is at least a tremendous handicap.

Dr. Raymond Leaves Rockefeller Institute to Head Searle Research

Announcement has just been made by G. D. Searle & Co., Chicago, of the appointment of Dr. Albert L. Raymond as Director of their Research Laboratories.

To take this Searle appointment, Dr. Raymond resigns from the Rockefeller Institute of Medical Research, with which he has been connected for the past nine years, the last seven of which he was an associate of Dr. Levene.

For two years he was National Research fellow, working on problems connected with the biological mechanism of carbohydrate degradation.

Dr. Raymond is a Californian and gained his Ph.D. at the California Institute of Technology, Pasadena, in 1925. Afterwards he spent three years part-time teaching at California Institute of Technology and at the University of California.

He is a member of the American Chemical Society and the American Society of Biological Chemists.

Says Dr. Raymond:

"I know of no field offering greater facilities for the practical applications of biochemical research than the laboratory of a pharmaceutical house. Here we come in first hand contact with the problems of that working scientist, the practicing physician, and this is a great incentive to provide him with better chemical instruments with which to fight disease."



Congenital Obstructions of the Female Urethra

In a study of 1,227 women patients with urinary disturbances WILLIAM E. STEVENS, San Francisco (*Journal A. M. A.*, Jan. 11, 1936), found that strictures were partly or wholly responsible for the symptoms in 458. About 85.6 per cent were found at the external meatus. A ring or thin circular band of tissue was seen at this location on withdrawal of a bulb bougie in at least one half of these cases.

MEDICAL BOOK NEWS

Edited by TASKER HOWARD, M.D.

All books for review and communications concerning *Book News* should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn, New York.

March, 1936

CLASSICAL PARAGRAPH



For thousands of years medicine has united the aims and aspirations of the best and noblest of mankind. To deprecate its treasures is to discount all human endeavor and achievement as nought.

Karl Marx. Quoted in "For and Against Doctors," by Robert Hutchison and G. M. Wauchope. William Wood & Co., Baltimore, 1935.

Knowles' Dermatology Revised

DISEASES OF THE SKIN. By Frank C. Knowles, M.D. Third edition. Philadelphia, Lea & Febiger, [c. 1935]. 640 pages, illustrated. 8vo. Cloth, \$6.50.

This is the third edition of this text, and it is really a very good book. The author has rewritten, and revised it completely, so that one finds the latest thought, including an up-to-the-minute outline of allergic reactions, and of the trichophytids.

Treatment of various diseases has been brought up to date, particularly of syphilis and eczema. Many new photographs have been added, and, for the benefit of the student, prescriptions are incorporated in the text under the specific diseases.

The chapter on general diagnosis, with its tabulation of diseases according to types of eruptions, and areas of distribution, is exceptionally helpful.

E. ALMORE GAUVAIN.

Eleventh Edition of Jordan's Bacteriology

A TEXTBOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph.D. Eleventh edition. Philadelphia, W. B. Saunders Company, [c. 1935]. 825 pages, illustrated. 8vo. Cloth, \$6.00.

A popular text since 1908, there has been considerable revision and rearrangement required by advances in the subject during the last four years since its previous edition. Primarily a text for medical students, its subject has been directed for use in any science requiring technical knowledge of bacteriology. The clear and sound survey of pathogenic organisms is well arranged and has been divided into groupings by natural relationships. Application of the text to sanitation and to immunology is exceptional, and as an introduction to the industrial, dairy, and agricultural bacteriology, notable. Particularly inter-

esting is the chapter concerning plant diseases of bacterial etiology. The excellent selection of references, if followed by the reader, will make a complete and well-rounded bacteriological experience. It is recommended, however, that the confusion of granuloma inguinale and lymphogranuloma inguinale be adjusted in the next edition.

IRVING M. DERBY.

Juvenile Delinquency

THE DELINQUENT BOY AND THE CORRECTIONAL SCHOOL. By Norman Fenton. Claremont, California, Bureau of Juvenile Research, [c. 1935]. 182 pages, illustrated. 4to. Paper, \$1.50.

This work is based on a study of the Whittier State School of California as a representative of a progressive institution for the care of the delinquent boy. It also serves as a basis for evaluation of the correctional school of the present.

In this institution treatment is based on a complete understanding of the delinquent as an individual; use is made of the physician, psychologist, educator, and social worker. The plan of architecture is the cottage plan. Instead of punishment the keynote is adjustment through the understanding of individual differences. The author describes the method of reception of a new boy. Then follows individual study and a round table conference for formulation or procedure. In the following chapter there is a statistical study of certain characteristics of 400 delinquent boys. There are subsequent chapters on the program of academic and vocational education and preparation of the boy for return to the community. There is an adequate bibliography.

The book has its appeal for those interested in the field.

STANLEY S. LAMM.

An Ethnological Approach to Sex

THE SEXUAL RELATIONS OF MANKIND. By Paolo Mantegazza. Eleventh edition. Translated from the latest Italian edition by Samuel Putnam. Edited with an Introduction by Victor Robinson, M.D. New York, Eugenics Publishing Company, [c. 1935]. 335 pages. 8vo. Cloth, \$3.00.

Whereas the average textbook on sex wins its readers with sensual and sordid facts, this book on sexual relations is too macroscopic to be exciting, for it encompasses the variable sexual rituals and practices of the entire globe. And so, beyond the fact that these practices may cause amazement, they must nevertheless seem important to the student of ethnology, who in order to familiarize himself with the various races of mankind, can better understand them through just such an approach.

The American physician will hardly worry as to how the Mombuto women or the Garo tribesmen behave sexually; and if he does, he will soon find that the rites of different tribes vary to such an extent that the imagination can supply the rest of the picture.

EMANUEL KRIMSKY.

Surgery of Industrial Injuries

INJURY AND INCAPACITY WITH SPECIAL REFERENCE TO INDUSTRIAL INSURANCE. By H. Ernest Griffiths, F.R.C.S. Baltimore, William Wood & Company [c. 1935]. 270 pages. 8vo. Cloth, \$5.00.

This is a book of 250 odd pages, written by a capable and distinguished British surgeon. The basis upon which the conclusions are drawn are so extensive as to leave no doubt as to the worth of the author's statements. Fifty thousand cases from the records of a large insurance company, in addition to 15,000 from the author's personal experience, constitute the background for the treatise. The various chapters discuss the injuries and resulting disabilities from practically all the common injuries. There are many statements that are surprising in reference to the results of corrective operations. For instance, acromioclavicular joint has complete restoration of function without operation and operation offers no better result than this. This is just one of the many examples of surprising statements which nevertheless must be true in his experience.

In this day and age when the general practitioner as well as the surgeon is entering into the care of the injured workmen, under the new Labor Law, "Injury and Incapacity" will offer him a valuable guide. It will permit him to foretell the possible result of disability and make him judicious in his operative procedures.

The reviewer has been so impressed with the worth of this book he has taken the liberty of ordering it for his hospital library.

ROBERT F. BARBER

On Child Culture

GROWING SUPERIOR CHILDREN. By I. Newton Kugelmass, M.D. New York, D. Appleton-Century Company [c. 1935]. 568 pages, illustrated. 8vo. Cloth, \$5.50.

This book has for its object the development of a regime which will result in superior growing children. The plan of the book is to take up the development of newborns, infants, children and adolescents. Advice is given to parents on the physical, mental and emotional development in childhood. There are tables, charts and photographs throughout. This book is of particular interest to parents social workers and teachers.

It may also be read with profit by the physician so as to familiarize himself with the type of knowledge which the parent would be most interested in obtaining.

STANLEY S. LAMM.

A New Bacteriology

A TEXTBOOK OF BACTERIOLOGY. By Thurman B. Rice, M.D. Philadelphia, W. B. Saunders Company [c. 1935]. 551 pages, illustrated. 8vo. Cloth, \$5.00.

This textbook is a departure from the usual text in bacteriology in that it was planned to be complete, yet brief and to the point, giving only essential details such as would be really useful to the medical student and the practicing physician. Hence long theoretical discussions of controversial subjects have been eliminated. The prac-

tical phases of bacteriology are ably and adequately presented—diagnosis, prognosis, and etiology; the proper collection of specimens for the laboratory; disinfection; serum and vaccine therapy; prophylaxis; and sanitary control. Pathogenic protozoa, rickettsias, viruses, and bacteriophage are covered. Short tables summarizing important facts are frequently employed, and are very helpful to the reader.

For students who are interested in the essential facts and methods of bacteriology, this text will be more useful than the larger works that go into great and often confusing detail.

ARNOLD H. EGGERTH.

Obstetrics and Gynecology in Brief

A PRACTICAL HANDBOOK OF MIDWIFERY AND GYNECOLOGY FOR STUDENTS AND PRACTITIONERS. By W. F. T. Haultain, F.R.C.S., and Clifford Kennedy, F.R.C.S. Second edition. Baltimore, William Wood & Company [c. 1935]. 356 pages, illustrated. 8vo. Cloth, \$5.25.

Really what it professes to be—a handbook. Terse, crisp statements are the rule, and the authors do not indulge in lengthy discussion of any subject. The operation for carcinoma of the vulva, for instance, is well described in about ten lines. The essentials of obstetrics and gynecology are remarkably well condensed, and the book admirably fulfills the purpose of its authors, who apparently wished to present but the bare facts of both subjects.

CHARLES A. GORDON.

Third Edition of Speed's Fractures

A TEXTBOOK OF FRACTURES AND DISLOCATIONS. By Kellogg Speed, M.D. Third edition. Philadelphia, Lea & Febiger [c. 1935]. 1000 pages, illustrated. 8vo. Cloth, \$11.00.

There is no question or problem connected with fractures and dislocations that can be asked by the student, practitioner or general surgeon that cannot be adequately answered in this excellent book which has been brought thoroughly up to date. Every type of fracture and dislocation has been considered. The pathology and all recognized methods of treatment are discussed. The author has stated their advantages and disadvantages and his own preference. No fads or fancies have been considered.

The illustrations are mostly tracings from X-rays and are more instructive and more easily interpreted than the ordinary X-ray pictures. Operative procedures are up to date and clearly explained. The emergency treatment of fractures and dislocations is similar to that outlined by the Fracture Committee of the American College of Surgeons. Skeletal traction is recommended for many fractures of the long bones where a strong pull is indicated. Drilling of the bone ends is advised for ununited fractures. The author seems to recommend the use of Lane plates more than other writers. However, he stresses the proper technic and the use of the proper plates and self tapping bone screws. The ordinary wood screw is condemned.

The chapter on fracture of the neck of the femur treats with the anatomy and structural arrangements which predispose to the poor results in what is probably the most disabling fracture in the body. It explains the reasons for poor union, malunion and absorption of bone structures. The author stresses the importance of lateral X-rays of the neck of the femur. His usual treatment is the Whitman spica after correct reduction. The Smith-Petersen nail, the autogenous bone peg and various other methods are described. No new treatments and no improvements of old methods are offered. A great deal of work is still to be done before this type of fracture can be treated with any assurance of a satisfactory result.

In his after treatment, the author advises against passive motion and uses active motion only to the point where the patient complains of pain.

JOHN F. RAYCROFT.

Textbook on Public Health

AN INTRODUCTION TO PUBLIC HEALTH. By Harry S. Mustard, M.D. New York, The Macmillan Company [c. 1935]. 250 pages. 8vo. Cloth, \$2.50.

Public health is most closely associated with the practice of medicine, and if the medical profession is to lead in

this field, the practicing physician must be conversant with the subject.

Dr. Mustard presents in concise, well arranged and attractive reading form, a small volume "An Introduction to Public Health," which should prove of interest to the physician. The author states in the foreword that, "It is purposely brief;" also "when in the following pages are encountered what are obviously the writer's opinions, they should be taken only for what they are; opinions."

The book opens with a brief historical resume of the contributors to public health, then is discussed the subjects of Vital Statistics, Organization and Administration of Public Health Work, Communicable Diseases, Tuberculosis, Venereal Diseases, Sanitation, Maternity, Young Children, and School Health Service. The chapters though briefly written, are comprehensive, to the point, and emphasize the main facts by means of bold faced type. It is unfortunate that, in view of the relation of industrial and mercantile life to public health, the author failed to devote a chapter to this subject.

For more broad reading or study, at the end of each chapter is a brief bibliography of references and text books. There is a splendid index including both subjects and authors.

The author is well qualified to write upon the various subjects presented, and while the reader may not agree with some of the author's opinions, the greater part of the work contains information of value to those interested in public health work, especially the physician in the suburbs, as the book presents concisely what is pertinent to the subject, and indicates where information more in detail may be found.

The volume is worthy of a place in the physician's library of ready reference books.

C. T. GRAHAM-ROGERS.

An English Text on Psychopathology

ESSENTIALS OF PSYCHOPATHOLOGY. By George W. Henry. Baltimore, William Wood & Company [c. 1935]. 312 pages. 8vo. Cloth, \$4.00.

This book is a presentation of the nature and causes of personality disorders, together with a description of methods of examination. There are twelve chapters devoted to the following subjects, heredity and environment, personality and constitution, the function of the brain, toxic factors, the relation of physical disease to personality disorder, vegetative functions and emotional reactions, personality integration, mental dynamisms, maladjustment in childhood, psychiatric case records, methods of examination, and psychopathological phenomena. There is a valuable bibliography to topics that require more intensive studies. The author has attempted to summarize the wealth of material on the subject of personality and its disorders. The medical student will find the book a helpful introduction to the subject of psychopathology and psychiatry. It is recommended to those workers who are particularly interested in conduct disorders.

IRVING J. SANDS.

Calories and Vitamins

FOOD VALUES AT A GLANCE AND HOW TO PLAN A HEALTHY DIET. By Violet G. Plimmer. New York, Longmans, Green & Company [c. 1935]. 94 pages. 12mo. Cloth, \$1.50.

We must agree with the author that useful information lies buried in columns of figures. The author gives all the desired information by visual instructions.

She represents foods by colored charts giving their content, caloric value and vitamin index. The 26 charts at the end of the book are impressive and graphic and cannot fail to impress one from simplicity, usefulness and acceptability.

The author takes the practical stand on food, fads and diets. The vitamins are briefly yet completely discussed. The author outlines diets for the family as well as for schools and institutions. Especially interesting is the meatless school diet on pages 72 and 73. The claims of the exponents of raw unpasteurized milk are borne out by the author in her discussion on the supply of mineral salts.

We do not hesitate to recommend this book although small, for guide and reference work, for all who are interested in this subject.

SAMUEL ZWERLING.

Largely About Cretinism

SCHILDRUSENERKRANKUNGEN IM KINDESALTER. (Thyroid Diseases in Childhood.) By Prof. Dr. Edmund Nobel, Dr. Werner Kornfeld und Dr. Alexander Ronald. Wien, Wilhelm Maudrich [c. 1935]. 129 pages, illustrated. 8vo. Cloth, RM 10.

This work is based on a study of cases carefully observed in the Pirquet clinic over a period of ten years. The treatise includes the history, physiology, pathology, classification and discussion, and methods of investigation of thyroid disturbances.

Because of the relatively rare occurrence of hyperthyroidism in childhood, the authors devote only six of the one hundred and fifteen pages to it. The greater part of the book deals with disturbances due to hypofunction of the thyroid gland. Skeletal and mental disturbances are especially emphasized. As to treatment, the dose of thyroid extract or thyroxin is based on sitting height rather than on total weight of the child. They also stress the importance of pedagogic therapy in these children.

The book contains a number of interesting case reports, numerous tables illustrating disturbances in skeletal development and many excellent serial photographs.

The booklet should be of real value to anyone interested in the subject of thyroid gland disturbances in childhood.

JACOB ROSENBLUM.

Multum in Parvo

TUMORS OF THE URINARY BLADDER. By Edwin Beer, M.D. Baltimore, William Wood & Company [c. 1935]. 166 pages, illustrated. 8vo. Cloth, \$3.50.

This is a well printed and sufficiently illustrated monograph of 150 pages which will be a classic long after two volume, one thousand pages each, "treatises" will rest in the pulp mill. The book opens with an historical account told, not as history, but as a background for better understanding of our present state of knowledge of the management of these tumors of the bladder "whose frequency has not been realized by the medical profession."

Etiology. "Very little as yet is known concerning their etiology. Chemical irritation is probably directly responsible for certain groups of bladder tumors." 40% of the tumors studied by him are benign papillomata. His statements are based on clinical observation over many years on the same patients—observations controlled by cystoscopy, biochemical examinations, biopsies and autopsies, so that his statement that "one finds definite malignant areas in otherwise benign papillomata" should warn all physicians against regarding a biopsy report as final. His remarks on the use of Broder's classification as an index to treatment is confirmed by all observant clinicians.

The outstanding symptom of cancer of the bladder is PAINLESS HAEMATURIA. Too often laymen and physicians forget this. Diagnosis is established by cystoscopy, biopsy, cystograms and response to the high frequency current.

Treatment consists in the wise use of electric coagulation through the cystoscope, X-ray therapy to control relapses, radium seed for small papillary carcinomata and suprapubic approach for this procedure when the growths are too numerous, too large, or inaccessible through the cystoscope. For more radical procedures with attempts at cure the text must be read and studied.

This is the best monograph on the subject of which we know. There are no emphatic statements, no challenges but the experience of twenty-five years from one of the leading true experts of the world is presented so that the general reader may be well informed and this reviewer finds it a source of delight and stimulation.

STURDIVANT READ.

Translation of a Standard German Book on Fractures

THE TREATMENT OF FRACTURES. By Lorenz Böhler, M.D. Fourth English edition. Translated from the Fourth enlarged and revised German edition. Baltimore, William Wood & Company [c. 1935]. 578 pages, illustrated. 4to. Cloth, \$12.00.

This book gives the principles of traumatic surgery as twenty-five years in his specialty have developed them into the wisdom of Dr. Böhler. As a ship's surgeon, a general country practitioner, an army surgeon at the front and at a 200 bed base hospital and finally as Director of the 100 bed Hospital for Accidents in Vienna the author has had a preeminent opportunity to carefully observe vast

material. Unlike so many continental publications Dr. Böhler includes excellent follow-up statistics, largely made possible because of his commanding position in the compensation work of his country.

At the end of the section on each separate fracture or dislocation is a concise list of mistakes commonly noted in the treatment of this condition. "Some things which formerly I advised are now relegated to the category of 'mistakes'." This is why the present edition is more valuable than the preceding. Even in his outstanding position of leadership the author is still learning from mistakes. Repeatedly he decries open operation, showing that with exact closed methods it is rarely necessary but he is broad enough to observe the results of others and acclaims Sven Johansson's method and the Smith-Petersen nail. Many a fetish is dispatched without mercy.

In the author's lecture theatre four wall charts declare his principles of treatment: Exact reduction. Uninterrupted fixation (more prolonged than is generally done and more fixed due to the frequent use of Kirschner wires and the unpadded plaster splint). Active motion of as many of the joints of the injured limb as possible and of all the rest of the body. Uninterrupted rest of the site of the injury. (Wounds after debridement and suture, of the skin only, are exposed without dressings in order that they may be constantly observed without even the disturbance of a change of gauze.) Elevation of the part is emphasized, wet dressings are especially deprecated. "Massage and passive movements do the greatest possible harm in the treatment of recent injuries of bones and joints," and this is emphasized regarding fractures into joints.

In his preface to this English edition E. W. Hey Groves says "a visit to Dr. Böhler's clinic in Vienna and the translation of his book have been to me a great pleasure and education." About 400 surgeons and students attend the clinic each year. Not being one of the fortunate, the reviewer having read this volume from title to final index and studied its clarifying photographs and diagrams, feels it worth many times the price of the book.

WILLIAM H. FIELD.

From a Bitter Critic

THE PATIENT'S DILEMMA. A Public Trial of the Medical Profession. By S. A. Tannenbaum, M.D., and Paul M. Branden. New York, Coward-McCann, Inc. [c. 1935]. 278 pages. 8vo. Cloth, \$2.50.

Because of the sins of a few, the authors have castigated most of the members of the Medical Profession, classifying them as Racketeers. The Hospitals have been taken to task, because "of their intrusion into the Practice of Medicine," "the exploitation of their Medical Staffs," and their attitude in "compelling the Medical Staff to keep the private beds filled at any cost."

Scientific facts have been distorted and legitimate and proper procedures are made to appear as quackery and utilized, solely as a source of revenue. The authors rightfully cry out against Fee-Splitting and its attending consequences. Organized Medicine is pictured as a "Set-Up" to perpetrate and perpetuate the exploitation of the public; offering them no protection against incompetency, but concerned only with the financial gain of its members.

Finally, in its last chapter, the "bête noire" is discovered. The writers have taken over two hundred pages, to advocate, that which could be summarized in the final paragraph, namely, State Medicine.

It may be suggested, that the members of the profession read this book with care, in order to gain an insight into the methods, that a biased group may employ, to place the Medical Profession in an unfavorable light, in order to further their cause.

HENRY J. FEASTER.

Haggard's Surgical Essays

SURGERY, QUEEN OF THE ARTS, AND OTHER PAPERS AND ADDRESSES. By William D. Haggard, M.D. Philadelphia, W. B. Saunders Company [c. 1935]. 389 pages, illustrated. 8vo. Cloth, \$5.50.

This book of 389 pages includes a score and more of medical addresses and papers selected from 150 contributions. Some are of biographical interest, some pertain to medical history, others report addresses of a clinical nature and several are in the nature of contributions on specific surgical suggestions of general interest. They are all of scientific intent.

The papers on such subjects as the surgical treatment of goiter, surgery of the gallbladder and bile ducts, perforating peptic ulcer, appendicitis, acute intestinal obstruction, tumors of the kidney and several others are epitomized from the entire experience of the author with these major surgical problems. The papers are all of a stimulating character, written in an easy, interesting and forceful style and should be of interest, not only to the surgeon but to the physician and general practitioner as well.

EMIL GOETSCH.

Quotations About Doctors

FOR AND AGAINST DOCTORS. An Anthology compiled by Robert Hutchison & G. M. Wauchope. Baltimore, William Wood & Company [c. 1935]. 168 pages, illustrated. 12mo. Cloth, \$2.00.

A small volume of quotations about doctors and doctoring from the scissors of two English scholars. If you are pro or anti you will find in epigram and verse keen comments on your side, and either way, amusement and some instruction.

TASKER HOWARD.

Alcohol and the Narcotics

A SQUARE DEAL FOR THE NARCOTIC ADDICT. By William H. Ladue, M.D. Published by the Author [c. 1935]. 131 pages. 8vo. Paper, \$1.00.

This booklet is in the nature of an old time Miltonian philippic. The author inveighs against alcohol under the guise of attacking the narcotic problem. His point of view is expressed in his motto that the world will tolerate many vices but not their diminutives. That is to say, why shout about narcotics when almost everybody in the world drinks. This insidious method of approach is a wind which blows no one any good, since its derived motives scare off those who would listen about alcohol and do the narcotic problem no constructive good.

SAM PARKER.

Aluminum in Food

Propaganda as to possible dangers resulting from the use of aluminum cooking vessels is so persistent that one suspects ulterior motives in its background. The problem has been investigated at various times, and in the presence of a renewed criticism of the widespread employment of aluminum vessels another recent study of the subject has appeared under the auspices of the British Ministry of Health. The accurate determination of aluminum in food and biologic material, according to Monier-Williams, who wrote the report, is a difficult matter. The amount usually present is small and cannot easily be separated completely from iron and other metals. The method that has finally been adopted depends on the precipitation by 8-hydroxyquinoline and, although considerably longer than some of the colorimetric methods, has the advantages that it is applicable over a wide range of aluminum content and that the aluminum is obtained in a form in which it can be weighed or titrated. The figures for the amount of metal taken up by food from aluminum vessels vary considerably, owing to different conditions of experiment. Distilled water, whether hot or cold, has almost no action. Hard waters, however, corrode aluminum slightly and the same is true of organic acids. Aluminum is readily acted on by alkalis, and cooking utensils are therefore liable to be damaged if cleaned too often with soda. The problem of whether or not aluminum is injurious in moderate doses involves a number of different questions. It is probable that a considerable proportion taken into the stomach is soluble. Whether it can diffuse through the walls of the intestinal tract and get into the blood is a matter of further controversy, and at present judgment on this matter must be suspended. Aluminum salts in doses that are not unreasonably high have been shown to have some action on digestive processes. There is no convincing evidence, however, that aluminum in the amounts in which it is likely to be consumed as a result of the use of aluminum utensils has a harmful effect on the ordinary consumer. —*Jour. A. M. A.*, Jan. 18, 1936.